

# The **A to Z** of **Anatomical Histological and Medical terms**



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## Introduction

The following is a glossary of anatomical and histological (microscopic anatomy) terms: their etymology – derivation where relevant, **their word roots, prefixes, suffixes** and their **pronunciation**. Other common medical terminology used in health studies are also included. Many of these terms will appear again and again in medical/health related subjects.

Why such an array of vocabulary in this living document? Because of reader feedback!! This is a living document and it has been expanded with suggestions from students and colleagues alike. Already it is much changed from its first printing, due to this feedback. Initially it was only a glossary of anatomical terms, then as I took my students through Anatomy and onto Histology, they told me these terms too were also foreign to them in many cases and also caused them difficulty hence some common histological and cytological terms (by no means complete) were added. Later a commonality of terms were noted by the students who asked for an inclusion of their word roots and regular repeated prefixes and suffixes; derivations so they could build up and analyse the ANATOMY of the medical words themselves. Hence a section of common prefixes, suffixes and word roots was added to the beginning of the book with some included in the main text in **blue with a pronunciation guide**.

With the presentation of student seminars in anatomy and histology, it became obvious that some guide on how to pronounce many these terms for the new and the non-medical student was needed and so **a pronunciation guide and common explanation of some terms were also included in red**.

As you can see any contribution is greatly valued and can only make this and other A to Z publications more helpful for the reader, so please send any suggestions to me directly or via Aspenpharmacare who have graciously sponsored much of A to Z projects.

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## Acknowledgement and Future Plans

This is the second update of the A to Z books now numbering 5, including: **the A to Z of Skeletal muscles, the A to Z of the Bones of the Skull, the A to Z of Bones, Joints and Ligaments, the A to Z of Peripheral Nerves** and this book the A to Z of Anatomical Histological and Medical terms. Please see the back of the book for ordering details and the availability of the other titles in the series. **The A to Z of Histological and anatomical images** is still present on the website although yet to be turned into an A to Z book., and the further suggestions of books such as **the A to Z of Surface Anatomy, the A to Z of Gynecological terms, The A to Z of Radiology, The A to Z of Organs and Systems and the A to Z of Emergency Medicine, the A to Z of the skin and the A to Z of Neurology and the Nervous system** are also being discussed. As always we value your input and response as to the order and the need for this works. A feedback form at the back of the book is designed to collate any suggestions or ideas you may have. You are always welcome to visit our website and leave your suggestions there. Students, doctors and others, it is hoped you will use these guides and find them helpful in your studies, practice or other aspects of your healthy life.

## Dedication

I thank Aspenpharmacare for their ongoing support, in particular the Australian CEO Greg Lan. My family Ali, Zoe, Quentin, Jody and Mickey are my raison d'être, although I may not always show them how much their support means to me.

## Changes to the second edition

Changes to this volume are as follows: inclusion of additional acronyms used in medical and other related health areas, particularly in reference to students and including common abbreviations used on most medical wards and in emergency medicine; inclusion of some common Histological/Immunohistochemical stains and their uses; additional medical facts and tables and basic anatomical concepts and descriptions; guides to degrees diplomas and postnominals and other qualifications and an inclusion of some helpful medical mnemonics.

# Anatomical, Medical and Clinical Abbreviations and Acronyms in common use

## A

AA	= amino acids / androgenic alopecia
AAA	= abdominal aortic aneurysm
AAD	= antibiotic-associated diarrhoea
AAO	= alert, awake, and orientated
A&O	= alert & orientated
Ab	= antibody
ABD/Abd	= abdomen
ABG	= arterial blood gas
AC	= before eating
ACD	= acute contact dermatitis
ACLS	= advanced cardiac life support
ACTH	= adrenocorticotrophic hormone
ad libitum/ad lib	= take as needed / no restrictions
ADD	= attention deficit disorder
ADH	= anti-diuretic hormone
ADHD	= attention deficit hyperactivity disorder
adj.	= adjective
ADR	= adverse drug reaction / acute dystonic reaction
AED	= antiepileptic drug
AF	= atrial fibrillation / afebrile
AFB	= acid-fast bacilli
AFP	= alpha-fetoprotein
AFX	= atypical fibroxanthoma
A / G	= albumin/globulin ratio
Ag	= antigen
AI	= aortic insufficiency
AK	= actinic keratosis
AKA	= above the knee amputation
ALD	= alcoholic liver disease
ALL	= acute lymphocytic leukaemia
alt.	= alternative
Amb	= ambulate
AML	= acute myelogenous leukaemia
ANA	= antinuclear antibody
ANS	= autonomic nervous system
AOB	= alcohol on breath
AODM	= adult onset diabetes mellitus
AP	= anteroposterior or abdominal - perineal
ARDS	= acute respiratory distress syndrome

ARF	= acute renal failure
AS	= aortic stenosis
AS	= Alternative spelling, generally referring to the differences b/n British and American spelling
ASAP	= as soon as possible
ASCVD	= atherosclerotic cardiovascular disease
ASD	= atrial septal defect
ASHD	= atherosclerotic heart disease
AST	= anal skin tag
AV	= atrioventricular
A-V	= arteriovenous
A-V02	= arteriovenous oxygen

## B

b/n	= between
BBB	= bundle branch block /blood brain barrier
BCAA	= branched chain amino acids
BCC	= basal cell carcinoma
bd/bid	= twice a day
BD	= Bowen's disease / twice daily
BE	= barium enema
BEE	= basal energy expenditure
BF	= blood flow
BKA	= below the knee amputation
BLK	= benign lichenoid keratosis / benign lymphocytic keratosis
BL	= basal lamina
BM	= bone marrow /bowel movement/basement membrane
BMR	= basal metabolic rate
BOM	= bilateral otitis media
BP	= blood pressure / bullous pemphigoid
BPH	= benign prostatic hypertrophy
BPM	= beats per minute
BRBPR	= bright red blood per rectum
BRP	= bathroom privileges
BS	= bowel sounds / breath sounds / blood stream
BUN	= blood urea nitrogen
BV	= blood vessels
BW	= body weight
Bx	= biopsy

## C

c	= with
c.f.	= as demonstrated / that means
C&S	= culture and sensitivity
CA	= cancer/carcinoma
Ca	= calcium /carcinoma
CAA	= crystalline amino acids
CABG	= coronary artery bypass graft
CAD	= coronary artery disease
CAT (scan)	= computerized axial tomography
CBC	= complete blood count
CBG	= capillary blood gas
CC	= chief complaint
CCF	= chronic cardiac failure
CCU	= cardiac care unit
CCV	= critical closing volume
CF	= cystic fibrosis
CGL	= chronic granulocytic leukaemia
CHF	= congestive heart failure
CHO	= carbohydrate
chol.	= cholesterol
CI	= cardiac index
CIN	= carcinoma in situ
CK	= creatinine kinase
CML	= chronic myelogenous leukaemia
CMV	= cytomegalovirus
CN	= cranial nerves / compound naevus
CNH	= chondrodermatitis nodularis helicis
CNS	= central nervous system
CO	= cardiac output
C/O	= complaining of
COAD	= chronic obstructive airways disease
coag.	= coagulation
COLD	= chronic obstructive lung disease
COPD	= chronic obstructive pulmonary disease
CONN	= congenital naevus
CP	= chest pain/cerebral palsy
CPAP	= continuous positive airway pressure
CPDN	= compound naevus
CPK	= creatinine phosphokinase
CPR	= cardiopulmonary resuscitation
CRCL	= creatinine clearance
CRF	= chronic renal failure
CRP	= C-reactive protein
CSF	= Cerebrospinal fluid
CSSD	= chronic superficial scaling

	dermatitis
CT	= connective tissue / computerized tomography
CTCL	= cutaneous T cell lymphoma
cut.	= cutaneous
CUT HORN	= cutaneous horn
CVA	= cerebrovascular accident /costovertebral angle
CVAT	= tenderness at the costovertebral angle
CVP	= central venous pressure
CX	= cicatrix
CXR/CX	= chest X-ray

## D

DA	= dermatitis artifacta
DAT	= diet as tolerated
DAW	= dispense as written
DC	= discontinue /discharge
D&C	= dilation and curettage
DDx	= differential diagnosis
DF	= dermatofibroma
DFSP	= dermatofibrosarcoma protuberans
D5W	= 5% dextrose in water
DI	= diabetes insipidus
DIC	= disseminated intravascular coagulopathy
DIF	= direct immunofluorescence
DIP	= distal interphalangeal joint
DH	= dermatitis herpetiformis
DJD	= degenerative joint disease
DKA	= diabetic ketoacidosis
dL/dl	= decilitre
DM	= diabetes mellitus
DMS	= dermatomyositis
DN	= dermal naevus
DNR	= do not resuscitate
DNS	= did not survive processing (e.g. tissue sample)
DOA	= dead on arrival
DOE	= dyspnea on exertion
DPL	= diagnostic peritoneal lavage
DPT	= diphtheria, pertussis, tetanus
Ds	= disease
DSAP	= disseminated superficial actinic porokeratosis
DTR	= deep tendon reflexes
DVT	= deep venous thrombosis
DX	= diagnosis
Dysp	= dysplastic

## E

EAA	= essential amino acids
EAC	= erythema annular centrificum
EBA	= epidermolysis bullosa acquisita
EBL	= estimated blood loss
EC	= extracellular (outside the cell)
ECG	= electrocardiogram
ECT	= electroconvulsive therapy
EED	= erythema elevatum diutinum
EEG	= electroencephalogram
EFAD	= essential fatty acid deficiency
e.g.	= example
EMG	= electromyogram
EMS	= erythema multiforma
EMV	= eyes, motor, verbal response (Glasgow coma scale)
ENT	= ears, nose, and throat
EOM	= extraocular muscles
ESR	= erythrocyte sedimentation rate
ET	= endotracheal
ETT	= endotracheal tube
ERCP	= endoscopic retrograde cholangio-pancreatography
ETOH	= ethanol
EUA	= examination under anaesthesia

## F

FB	= foreign body
FBS	= fasting blood sugar
FDE	= fixed drug eruption
FEV	= forced expiratory volume
FFP	= fresh frozen plasma
FFFT	= fits, faints and/or funny turns
FRC	= functional residual capacity
FTT	= failure to thrive
FU	= follow-up
FUO	= fever of unknown origin
FVC	= forced vital capacity
Fx	= fracture

## G

GA	= granuloma annulare
GC	= Gonorrhoea
GD	= Grover's disease
GETT	= general by endotracheal tube
GFR	= glomerular filtration rate
GH	= growth hormone
GI	= gastrointestinal
GIT	= gastrointestinal tract
Gk.	= Greek
g/gm	= gram

gr	= grain; 1 grain = 65mg.
Therefore Vgr	= 325mg
GSW	= gun shot wound
Gt/gtt	= drops
GTT	= glucose tolerance test
GU	= genitourinary
GVDH	= graft versus host disease
GXT	= graded exercise tolerance test (Stress test)

## H

H	= hormone
HA	= headache
HAA	= hepatitis B surface antigen
HAV	= hepatitis A virus
Hb	= haemoglobin
HBP	= high blood pressure
HCG	= human chorionic gonadotropin
HCT	= hematocrit
HDL	= high density lipoprotein
HEENT	= head, eyes, ears, nose and throat
Hg	= haemorrhage
Hgb	= haemoglobin
H/H	= haemoglobin/haematocrit
HIV	= human immunodeficiency virus
HK	= solar keratosis
HLA	= histocompatibility locus antigen
HMF	= Hutchinson's melanotic freckle
HJR	= hepatojugular reflex
HO	= history of
HOB	= head of bed
HP	= high power
HPF	= high power field
HPV	= human papilloma virus
HPI	= history of present illness
HR	= heart rate
HS	= at bedtime
HSM	= hepatosplenomegaly
HSP	= herpes simplex virus
HTLV-III	= human lymphotropic virus, type III (AIDS agent, HIV)
HSV	= herpes simplex virus
HTN	= hypertension
Hx	= history

## I

I&D	= incision and drainage
I&O	= intake and output
IBR	= insect bite reaction
IC	= intracellular (inside the cell)
ICD	= irritant contact dermatitis

ICS	=	intercostal space
ICU	=	intensive care unit
ID	=	infectious disease/identification
IDDM	=	insulin dependent diabetes mellitus
IEC	=	intradermal carcinoma
IG/Ig	=	immunoglobulin
IHSS	=	idiopathic hypertrophic subaortic stenosis
IM/im	=	intramuscular
IMV	=	intermittent mandatory ventilation
INF	=	intravenous nutritional fluid
IPPB	=	intermittent positive pressure breathing
IRBBB	=	incomplete right bundle branch block
IRDM	=	insulin resistant diabetes mellitus
IT	=	intrathecal
ITP	=	idiopathic thrombocytopenic purpura
IV/iv	=	intravenous
IVC	=	intravenous cholangiogram/inferior vena cava
IVP	=	intravenous pyelogram

## J

JN	=	junctional naevus
JODM	=	juvenile onset diabetes mellitus
JVD	=	jugular venous distention

## K

KA	=	keratocanthoma
KOR	=	keep open rate
KP	=	keratous pilaris
KUB	=	kidneys, ureters, bladder
KVO	=	keep vein open

## L

L	=	left
LAD	=	left axis deviation/left anterior descending
LAE	=	left atrial enlargement
LAHB	=	left anterior hemi-block
LAP	=	left atrial pressure or leukocyte alkaline phosphatase
LBBB	=	left bundle branch block
LDH	=	lactate dehydrogenase
LE	=	lupus erythematosus
LIH	=	left inguinal hernia
LK	=	lichenoid keratosis

LLL	=	left lower lobe
LMM	=	lentigo maligna (melanoma)
LMP	=	last menstrual period
LNMP	=	last normal menstrual period
LOC	=	loss of consciousness/level of consciousness
LP	=	lumbar puncture / lichen planus
Lt.	=	Latin

## M

M	=	margin (generally of the skin)
MAO	=	monoamine oxidase
MAP	=	mean arterial pressure
MAST	=	medical anti-shock trousers
MBT	=	maternal blood type
MCH	=	mean cell haemoglobin
MCHC	=	mean cell haemoglobin concentration
MCTD	=	mixed connective tissue disease
MCV	=	mean cell volume
MI	=	myocardial infarction/mitral insufficiency
mL/ml	=	millilitre
MLE	=	midline episiotomy
MM	=	malignant melanoma
MMEF	=	maximal mid expiratory flow
Mmol	=	millimole
MMR	=	measles, mumps, rubella
MRI	=	magnetic resonance imaging
MRSA	=	methicillin resistant staph aureus
MS	=	multiple sclerosis/mitral stenosis/morphine sulphate
MSSA	=	methicillin-sensitive staph aureus
MVA	=	motor vehicle accident
MVI	=	multivitamin injection
MVV	=	maximum voluntary ventilation

## N

NAD	=	no active disease/ no abnormality detected
NAS	=	no added salt
NCV	=	nerve conduction velocity
NED	=	no evidence of recurrent disease
Ng	=	nanogram
NG	=	nasogastric
NIDDM	=	non-insulin dependent diabetes mellitus
NKA	=	no known allergies
NKDA	=	no known drug allergies
NMR	=	nuclear magnetic resonance
nocte	=	at night



## The A to Z of Anatomical Histological and Medical terms

NPO = nothing by mouth /nil by mouth  
 NRM = no regular medications  
 NSAID = non-steroidal anti- inflammatory drugs  
 NS = nervous system  
 NSR = normal sinus rhythm  
 NT = nervous tissue / nasotracheal

### O

OB = obstetrics  
 OCG = oral cholecystogram  
 OD = overdose / right eye  
 OE / O/E = on examination  
 OM = otitis media  
 OOB = out of bed  
 OP = out patients - hospital patients treated but not admitted  
 OPV = oral polio vaccine  
 OR = operating room  
 OS = left eye  
 OU = both eyes

### P

P = para  
 PA = posteroanterior  
 PAC = premature atrial contraction  
 PAO2 = alveolar oxygen  
 PaO2 = peripheral arterial oxygen content  
 PAP = pulmonary artery pressure  
 PAS = periodic acid Schiff's stain  
 PAT = paroxysmal atrial tachycardia  
 P&PD = percussion and postural drainage  
 Pb = prothrombin time / lead  
 PC = after eating  
 PCWP = pulmonary capillary wedge pressure  
 PD = pathological diagnosis  
 PDA = patent ductus arteriosus  
 PDR = physicians desk reference  
 PDx = provisional diagnosis  
 PE = pulmonary embolus /physical exam / pleural effusion  
 PEEP = positive end expiratory pressure  
 PFT = pulmonary function tests  
 Pg/pg = pictogram  
 PHx = past history  
 PI = pulmonic insufficiency disease / pulmonary index  
 PKU = phenylketonuria  
 pl. = plural  
 PMH = previous medical history

PMI = point of maximal impulse  
 PMN = polymorphonuclear leukocyte (neutrophil, polymorph)  
 PN = peripheral nerve  
 PND = paroxysmal nocturnal dyspnea  
 PNS = peripheral nervous system  
 PPD = pigmented purpuric dermatosis  
 PR = petechial rash  
 prn = given as required no set treatment regime  
 PS = pulmonic stenosis  
 PT = prothrombin time, or physical therapy

Pt = patient  
 PTCA = percutaneous transluminal coronary angioplasty  
 PTH = parathyroid hormone  
 PTHC = percutaneous transhepatic cholangiogram  
 PTT = partial thromboplastin time  
 PUD = peptic ulcer disease  
 PUPP = pruritic urticarial papules and plaques of pregnancy  
 PVC = premature ventricular contraction  
 PVD = peripheral vascular disease

### Q

q = every (e.g. q6h = every 6 hours)  
 qd = every day  
 qh = every hour q4h, q6h.... every 4 hours, every 6 hours etc.  
 qid = four times a day  
 QNS = quantity not sufficient  
 Qod = every other day  
 Qs/Qt = shunt fraction  
 Qt = total cardiac output

### R

R = right  
 RA = rheumatoid arthritis or right atrium  
 RAD = right atrial axis deviation  
 RAE = right atrial enlargement  
 RAP = right atrial pressure  
 RBBB = right bundle branch block  
 RBC = red blood cell  
 RBP = retinol-binding protein  
 RBS = random blood sugar  
 RBT = random breath test  
 RDA = recommended daily allowance  
 RDW = red cell distribution width  
 RIA = radioimmunoassay

RIH	= right inguinal hernia	SLE	= systemic lupus erythematosus
RLL	= right lower lobe	SMO	= slips made out
RLQ	= right lower quadrant	SN	= spinal nerve
RML	= right middle lobe	SO	= standing orders
RNA	= ribonucleic acid	SOAP	= Subjective, Objective, Assessment, Plan
R/O	= rule out	SOB	= shortness of breath
ROM	= range of motion	SQ	= subcutaneous
ROS	= review of systems	ss	= one-half /same side /signs and symptoms
RPG	= retrograde pyelogram	SSM	= superficial spreading melanoma
RRR	= regular rate and rhythm	SSMM	= superficial spreading malignant melanoma
RT	= respiratory therapy / radiation therapy	STAT	= immediately
RTA	= renal tubular acidosis	STD	= sexually transmitted disease
RTC	= return to clinic	sup.	= superior
RU	= resin uptake	supf.	= superficial
RUG	= retrograde urethrogram	SVD	= spontaneous vaginal delivery
RUL	= right upper lobe	Sx	= symptoms
RUQ	= right upper quadrant		
RV	= residual volume		
RVH	= right ventricular hypertrophy		
Rx	= treatment / regime		

## S

s	= without	T&C	= type and cross
SA	= sinoatrial	TAH	= total abdominal hysterectomy
SAA	= synthetic amino acid	T&H	= type and hold (blood or serum products)
S&E	= sugar and acetone	TB	= tuberculosis
SBE	= subacute bacterial endocarditis	TBG	= total binding globulin
SBFT	= small bowel follow through	Td	= tetanus-diphtheria toxoid
SBS	= short bowel syndrome	tds	= three times daily
SC	= spinal cord / subcutaneously	TIA	= transient ischemic attack
sc	= subcutaneously	TIBC	= total iron binding capacity
SCC	= squamous cell carcinoma	Tid/td	= three times a day
SCr	= serum creatinine	TIG	= tetanus immune globulin
SEB K	= seborrheic keratosis	TKO	= to keep open
SEM	= systolic ejection murmur	TLC	= total lung capacity
SG	= Swan-Ganz (catheter)	TMJ	= temporo-mandibular joint
SGA	= small for gestational age	TNTC	= too numerous to count
SGGT	= serum gamma- glutamyl transpeptidase	TO	= telephone order
SGOT	= serum glutamic- oxaloacetic transaminase	TOPV	= trivalent oral polio vaccine
SGPT	= serum glutamic- pyruvic transaminase	TPN	= total parenteral nutrition
SIADH	= syndrome of inappropriate antidiuretic hormone	TSH	= thyroid stimulating hormone
Sig	= write on label	TT	= thrombin time
SIMV	= synchronous intermittent mandatory ventilation	TTP	= thrombotic thrombocytopenic purpura
sing.	= singular	TU	= tuberculin units / transurethral
SK	= solar keratosis	TUR	= transurethral resection
sl	= sublingual	TURBT	= TUR bladder tumors
		TURP	= transurethral resection of prostate
		TV	= tidal volume
		TVH	= total vaginal hysterectomy
		Tw	= twice a week
		Tx	= treatment, transplant

## U

UA	=	urinalysis
UAC	=	uric acid /umbilical artery catheter
UAO	=	upper airway obstruction
UBD	=	universal blood donor
UC	=	ulcerative colitis /umbilical cord
Ud	=	as directed
UFH	=	unfractionated heparin
UGI	=	upper gastrointestinal
URI	=	upper respiratory infection
URQ	=	upper right quadrant
URTI	=	upper respiratory tract infection
US	=	ultrasound
UTI	=	urinary tract infection
UUN	=	urinary urea nitrogen
UVA	=	ultraviolet A light

## V

VA	=	verruca / verrucous
VAD	=	venous access device
VC	=	vital capacity
VCT	=	venous clotting time
VCUG	=	voiding cysourethrogram
VDRL	=	Venereal Disease Research Laboratory (test for syphilis)
VMA	=	vanillylmalic acid
VO	=	verbal order / voice order
V/Q	=	ventilation - perfusion
VRE	=	vancomycin-resistant enterococcus
VSS	=	vital signs stable
VT	=	ventricular tachycardia
VV	=	varicose veins
VW	=	vessel wall
VWD	=	von Willebrand's disease
VZV	=	varicella zoster virus

## W

WB	=	whole blood
WBC	=	white blood cell / white blood cell count
WBR	=	whole body radiation
WD	=	well developed
WF	=	white female
WIA	=	wounded in action
WID	=	widow, widower
WM	=	white male
WN	=	well nourished
w/n	=	within
w/o	=	without
WNL	=	within normal limits

WO	=	written order /weeks old/ wide open.
WOP	=	without pain
WOS	=	wedge of skin
W.P.	=	whirlpool
WPW	=	Wolff-Parkinson-White (syndrome)
W-T-D	=	wet to dry
W/U	=	workup

## X

X2d	=	times 2 days.
XI	=	eleven
XII	=	twelve
XL	=	extended release / extra large.
XM	=	crossmatch
XMM	=	xeromammography
XOM	=	extraocular movements
XRT	=	X-ray therapy (radiation therapy)
XS	=	excessive
XULN	=	times upper limit of normal

## Y

y	=	years / yes
YF	=	yellow fever
YLC	=	youngest living child
yo	=	years old
YOB	=	year of birth
yr	=	year
ytd	=	year to date

## Z

ZDV	=	zidovudine
ZE	=	Zollinger-Ellison (syndrome)
Z-ESR	=	zeta erythrocyte sedimentation ate
Zn	=	zinc
ZnO	=	zinc oxide
ZSB	=	zero stools since birth

#	=	fracture / number
~	=	approximately
°	=	no (e.g. FFFT° = no fits, faints or funny turns)
1°	=	primary
2°	=	secondary
9/12	=	nine months
3/52	=	three weeks
5/7	=	five days
2/24	=	two hours
3/60	=	three minutes
3/360	=	three seconds
3s	=	three seconds

## Common Histological Stains and their uses

**Histology stains are a confusion of eponymous terms and methods used in individual laboratories. In many cases individual variations exist in different laboratories and it is advised that contact with the appropriate laboratory will give the medical professional the details they need, concerning their particular specialities and variations on these common stains. Those included here are those stains common to most labs and the principles behind the staining methods. There are many more and this list is by no means complete, also one stain may be used for many purposes eg the routine stain used in all labs. - H&E.**

**More details can be found in the A to Z of Histology / Histopathology, and the A to Z of the Skin and surface anatomy. See [www.aspenatlas.com](http://www.aspenatlas.com).**

### General Stains

#### Haematoxylin and Eosin (H&E)

This is an all round stain and used on nearly every section in the histology laboratory. The haematoxylin stains the nucleic acids and other acid material blue and the eosin acts as a counter stain to colour most other structures non-specifically red/pink, allowing an overall view of the cellular morphology. It generally not interfere with other stains and can be used in conjunction with them, for example with PAS.

#### PAS (periodic acid-Schiff)

This an all-around useful stain for many things. It stains glycogen, mucin, mucoprotein, glycoprotein, as well as fungi. A predigestion step with amylase will remove staining for glycogen. PAS is useful for outlining tissue structures: basement membranes, capsules, blood vessels, etc. It does stain a lot of things and, therefore, can have a high background. It is very sensitive, but not very specific.

### Structures stained

#### AFB (acid fast bacilli) stain for mycobacterium

This stain uses carbol-fuchsin to **stain the lipid walls of acid fast organisms such as *M. tuberculosis***. The most commonly used method is the Ziehl-Neelsen method, though there is also Putt's stain, Kinyoun's method a modification of which is the Fite-Faraco stain and has a weaker acid for supposedly more delicate *M. leprae* bacilli. Lipid is often removed in the processing, so this stain can be

insensitive particularly when looking in large granulomatous tissue. The most sensitive stain for mycobacteria is the Auramine-Rhodamine stain which requires a fluorescence microscope for viewing. There are things other than mycobacteria that are “acid fast”. Included are *cryptosporidium*, *isospora*, and the hooklets of *cysticerci*.

## Amyloid

Amyloid is a substance which can be found in all tissues pathologically. Although a fatty substance it is not fat but can be stained using Congo red, or Lieb's Crystal Violet method.

## Biogenic Amine stains for Argentaffin cells

(Autofluorescence, Diazo, Fontana-Masson, modified Giemsa, Schmorl's Pascual's and Weisel's stains)

Cells that produce polypeptide hormones, active amines, or amine precursors (adrenalin = epinephrine, noradrenalin = norepinephrine) can be found individually (Kulchitsky cell of GI tract) or as a group (adrenal medulla). The following is a traditional classification of the staining patterns based upon the ability of the cells to turn soluble silver nitrate to metallic silver - causing a black deposit in tissue sections.

Traditionally there are 3 patterns of staining although this is fairly artificial, as they are interchangeable when the fixative is changed.

**Chromaffin** cells have cytoplasmic granules that appear brown when fixed with a dichromate solution as in the adrenal medulla and their tumours pheochromocytomas; **Argentaffin** cells reduce a silver solution to metallic silver after formalin fixation, as in carcinoid tumours of the gut. Using a pre-reduction step may cause a more intense stain. This is called an **argyrophil** (silver loving) reaction.

## Blood smear stains

Romanowsky stains eg Giemsa stains, Wright-Giemsa stains

All these stains contain mixtures of methylene blue, azure, and eosin compounds. One property of methylene blue and toluidine blue dyes is metachromasia. This means that a tissue component stains a different colour than the dye itself. For example, mast cell granules, cartilage, mucin, and amyloid will stain purple and not blue, which is helpful in identifying these components, while using only the one stain.

## Calcium (Ca) Stains

Ca bound to an anion, such as phosphate ( $\text{PO}_4$ ) or  $\text{CO}_3$  (carbonate) can be demonstrated with the Von Kossa stain. Ca forms a blue-black lake with haematoxylin to give a blue colour on H&E stain, usually with sharp edges. This stain is most useful when large amounts are present, as in bone.

Alizarin red S forms an orange-red lake with Ca. It works best with small amounts of Ca (such as in Michaelis-Gutman bodies). The Alizarin method is also used in analyzers to measure serum calcium photometrically.

Azan stain can be used to differentiate osteoid from mineralized bone.

## Connective tissue stains (collagen, elastin, reticulin fibres and fibrin)

The trichrome stain helps to highlight the supporting **collagenous stroma** in sections from a variety of organs. This helps to determine the pattern of tissue injury. Trichrome will also aid in identifying normal structures, such as **connective tissue capsules of organs, the lamina propria of gastrointestinal tract, and the broncho-vascular structures in lung**. Sirius red stain is also used for **collagen** staining.

The reticulin stain is useful in parenchymal organs such as liver and spleen to outline the architecture. Delicate **reticular fibres**, which are argyrophilic, can be seen. A reticulin stain occasionally helps to highlight the growth pattern of neoplasms, by showing the dispersal of the normal fibrous architecture.

An **elastic tissue** stain such as the Verhoeff's van Giesen stain or Orcein-Giemsa stain help to outline arteries, because the **elastic lamina of muscular arteries, and the media of the aorta, contain elastic fibres**, and if used with the Masson stain for **collagen and muscle fibres** provides a good contrast.

Martius's scarlet blue stain distinguishes **fibrin** from true connective tissues and should be used where there is extensive inflammation.

## Exogenous pigments and minerals (asbestos, carbon, silica)

**Asbestos** is a special type of long-thin silica crystal, usually of the mineral group chrysotile. In tissue, these crystals are highly irritative and highly fibrogenic. The fibres become coated with a protein-iron-calcium matrix, giving them a shish-kebab appearance. These are called "ferruginous bodies" because they are highlighted with an iron

stain, such as Perl's iron stain, or the Prussian blue reaction.

**Carbon** appears as anthracotic pigment in the lungs. It can be distinguished from melanin by doing a Melanin bleach, which helps to distinguish carbon from melanin. Poorly fixed tissues may contain formalin-heme pigment, which is black and finely granular, but this is widely scattered in the tissues without regard to cellular detail. Formalin-heme pigment is also birefringent on polarization.

**Silica** is present in many minerals and building materials. Most forms are very inert and cannot be stained in tissue but can be demonstrated by white birefringence on polarization. It is most often present in lung, but can make its way into lymph node.

**Street drugs** for injection often are diluted with compounds containing minerals such as **silica or talc**. These crystals can be found throughout the body, but especially in lymphoreticular tissues.

**Tattoo pigment** is usually black and is inert and non-polarizable.

**Red tattoo pigment** often contains **cinnabar** (which has mercury in it). there are no specific stains for these materials, and in general, minerals are best demonstrated by microincineration techniques or by scanning electron microscopy with energy dispersive analysis (SEM-EDA), which is also used in the analysis of gunshot residue, because of its composition of antimony, barium, and lead.

## Fat stains

The oil red O (ORO) stain can identify neutral lipids and fatty acids in smears and tissues. Fresh smears or cryostat sections of tissue are necessary because fixatives containing alcohols, or routine tissue processing with clearing, will remove lipids. The ORO is a rapid and simple stain. It can be useful in identifying **fat emboli in lung tissue** or **clot sections of peripheral blood**.

## Fungi stains

(Gomori methenamine silver stain = GMS)

Fungi and *Pneumocystis carinii*, have cell walls which stain black or brown, outlining the organisms clearly. Disadvantages with this stain is the large amount of background staining, so the morphology of the organism needs to be known. Fungi also stains red with the PAS method and blue with H&E.

## Iron (haemosiderin) stains

Haemosiderin (storage iron granules) may be present in areas of old haemorrhage or be deposited in tissues with iron overload (haemosiderosis - physiological, haemochromatosis - pathological).

Perl's iron stain is the classic method for demonstrating iron in tissues. The section is treated with dilute hydrochloric acid to release ferric ions from binding proteins. These ions then react with potassium ferrocyanide to produce an insoluble blue compound (the Prussian blue reaction).

### **Lipochrome (lipofuscin) pigments - Age spots**

These are the breakdown products within cells from oxidation of **lipids and lipoproteins**. They are the wear-and-tear pigments found most commonly in heart, liver, CNS, and adrenal cortex (zona reticularis). The less highly oxidized "ceroid" pigment of testis interstitium and seminal vesicle is another form of lipochrome.

**Lipochrome** can be stained by Sudan black B, long Ziehl-Neelson acid fast, and Schmorl's methods. **Lipochrome** may also exhibit a strong orange autofluorescence in formalin-fixed, unstained paraffin sections.

### **Melanin stains**

The Fontana-Masson stain, relies upon the **melanin granules** to reduce silver nitrate (note, argentaffin, chromaffin, and some lipochrome pigments also will stain black as well). Schmorl's method uses the reducing properties of **melanin** to stain granules blue-green, but the most specific method is an enzyme histochemical method, DOPA-oxidase. DOPA substrate is acted upon by DOPA-oxidase in the **melanin-producing cells** to produce a brownish black deposit.

Bleaching techniques remove **melanin** in order to get a good look at cellular morphology. They make use of a strong oxidizing agent such as potassium permanganate or hydrogen peroxide. **Ocular melanin** takes hours to bleach, while **skin melanin** takes minutes.

Formaldehyde-induced fluorescence can be used to highlight biogenic amines (chromaffin, argentaffin) and melanin in tissues. Formalin fixation imparts a strong yellow autofluorescence to unstained tissues with these substances.

**Pseudomelanin** of melanosis coli is PAS positive whereas true melanin is not. **Pseudomelanin pigment** is also found in **macrophages**.

### **Microorganisms - bacteria stains**

Gram stain gram positive organisms stain purple and gram negative organisms stain red poorly. In H&E all bacteria appear as blue rods or cocci regardless of gram reaction. Colonies appear as fuzzy blue



clusters. **Spirochetes** are very difficult to stain. The best method is the Warthin-Starry stain. A Giemsa stain may help demonstrate **Donovan bodies and leishmania**.

## Mucin stains

There are a variety of mucin stains, all attempting to demonstrate one or more types of mucopolysaccharide substances in tissues. The types of **mucopolysaccharides** are as follows:

- **Neutral** - glands of the GI tract and in prostate. They stain with PAS.
- **Acid (simple, or non-sulphated)** - are in epithelial cells containing sialic acid. They stain with PAS, Alcian blue, colloidal iron method, and metachromatic dyes.
- **Acid (simple, mesenchymal) found in tissue stroma and sarcomas** - These contain hyaluronic acid. They stain with Alcian blue, colloidal iron, and metachromatic dyes.
- **Acid (complex, or sulphated, epithelial)** - These are found in adenocarcinomas. PAS, Alcian blue, colloidal iron, mucicarmine, and metachromatic stains are positive.
- **Acid (complex, connective tissue)** - found in tissue stroma, cartilage, and bone and include substances such as chondroitin sulphate or keratin sulphate. They stain with Alcian blue.

There are a variety of stains for **mucin**:

- Colloidal iron ("AMP") - stain acid mucopolysaccharides.
- Alcian blue - stains all mucins using a variety of methods
- PAS (periodic acid-Schiff) - stains glycogen as well as mucins
- Mucicarmine - specifically stains epithelial mucins.

The mucin stain with the most specificity is mucicarmine, but it is very insensitive. PAS is most sensitive but least specific Colloidal iron stains are unpredictable. Alcian blue stains are simple, but have a lot of background staining.

## Urates

Uric acid crystals are seen in acid urine. In tissue, urates are present as **sodium urate**. They are soluble in aqueous solutions and slightly soluble in weak alcoholic solutions. Therefore, tissues must be fixed in 95% or absolute alcohol to prevent leaching of urates.

Methenamine silver stains urates black. Sodium urate crystals are also birefringent on polarization.

## Common Exogenous materials found in tissues

substance	usual site	origin
aluminium	lungs skin	air / mining
asbestos	lungs	air / asbestos building materials / mining
beryllium	lungs, skin	mining
carbon	lungs, skin	gas emissions Traffic, smoking
fungal spores	lungs, skin, hair	mould, fungi, gardens
lead	kidney, bone, lungs, mucosal linings	paint, mining
silica	lungs, skin	glass, fibroglass material
silver	nasal passages, respiratory mucosa, skin	photography materials, silver, mining



## How to use the Pronunciation guide in this glossary

Words are written in Bold with a (bracketed guide) listed afterwards in English sounds - the syllables in CAPITALS are the syllables emphasized in the pronunciation of the word.

Words with a guide are often listed twice the pronunciation guide is first and the etymology or derivation of the word is then listed next with further explanation if necessary.

Please note spelling is both English and American with cross reference to each. With the inclusion of prefixes and suffixes where necessary, their simple pronunciation guide is bracketed after their inclusion. It is not listed in the front guide.

## Guide to Naming muscles

Most skeletal muscles are named based on one or more criteria

- 1 the **direction** of the muscle fibres eg rectus meaning straight (running parallel to an anatomical line -Rectus Abdominus - parallel to the abdominal midline) as opposed to oblique or transverse.
- 2 **location** where the muscle is located generally the associated bone eg Temporalis near the Temporal bone
- 3 **size or series** ie in a series of closely related muscles it is the largest maximus or the smallest minimus (gluteus maximus, gluteus minimus) or with only 2 the larger, major or the smaller minor eg Pectoralis major and Pectoralis minor. Maybe it is the longest, longus or the shortest, brevis or the first second or third prima, secundo, tertius.
- 4 **number of origins** eg Biceps which has 2 origins as opposed to Triceps which has 3.
- 5 **insertion and/or origin** where the muscle inserts and originates eg Sternocleidomastoid giving in the name the insertion and the origins of this muscle
- 6 **action** muscles are named for their actions in which case there is frequently an opposing muscle named to demonstrate this purpose: flexors - extensors / abductors - adductors / supinators - pronators / depressors - elevators / tensors - rotators.

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# Summary of prefixes, word roots and suffixes

Prefixes	Word root	Suffixes
A-: without / no	abdomin- abdomen, belly	-ac /aceous: pertaining to
Ab-: away from	acanth- spiny, thorny	-acousia: condition of hearing
Ac- /Ad-: towards /near	acar- mite, itch	-ac: state or quality of
Acu-: sharp /sudden	acet- vinegar	-ad: towards
	acetab- saucer	
	acou- hearing	
	acr- extremities	
	actin- ray	
	aden- gland	-adeni: state of glands
	adenoid- glandlike	
	adip- fat	
Af- / Ag-: near /going to	aemia- blood	-aemia /-emia: blood
	aer- air	-aesthesia/-esthesia: condition involving sensation
	aesthesi- feeling, perception	-adol: an analgesic
	aeti- cause	-age: rate action or process
	ala- wing	-agnosia: loss of ability to know
Alb-: white	alg- /algesi- pain	-agra: pain or painful seizure

All-: other different	aliment- nourishment	-al: pertaining to
Ambi-: both	alveoli- air sac	-ance /-ancy: quality or state
Ambly-: dull	amm- sand	-algnesia /-algia: sensitivity to pain
Ametri-: disproportionate	amnio- with foetal membranes	-arche: beginning
Amphi-: both sides, both, double	amyl- starch	-ary: pertaining to
An-: without /lack of	andr- man	
	angi- blood vessel	
Anis-: unequal / dissimilar	an- anus, anal	
Anomalo-: unequal, abnormal	anth- floral	
Ante-: before	anthrop- man, human	
Anti-: against	antr- antrum, sinus	
Anykl-: bent, crooked, looped	aqua- water	
	argyr- silver	
	arrhen- man, male	
	artereo- artery	
	arthr- joint	
Apo-: away from, detached	articul- joint surface	-aster: star shaped
	aster-, astr- star	-asthenia: weakness
Asthen-: weakness	ather- fat	-ate: to use /act like /subject to
At-: towards	atm- gas, atmosphere	-atresia: condition of occlusion
Atel-: imperfect	atri- waiting room	

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixes	Word root	Suffixes
Atreto-: imperfect /imperforate, closed	audi- hearing	-atrophia: condition of malnutrition / wasting
Auto-: self	aur- ear, ear shape	-aux/-auxe: enlargement
Aux-: growth, increase	auri- gold	
	axi- axis, axial	
	axilla- armpit	
	azot- nitrogen, urea	
Ball-: throw	balan- glans penis	
Bar-: pressure	bar- pressure, weight	-biosis / -biotic: life
Basi-: base, foundation	blenn- mucus	-blast: bud forming / immature / embryonic
Bi- /Bin-/ Bis-: two	blephar- eyelid	-blepharia: re the eyelid
Brachy-/Brevi-: short	brachi- arm / upper arm / gill	-blepsia/ -blepsy: condition of sight
Brady-: slow	branchi- gill	-brachia: to do with the arm
	bronchi- air transport in the lung / branch	-bund: prone to
	bucc- cheek	
Cac-: diseased, abnormal	calc- heel / lime /calcium	-cace: bad / diseased / deformed
	calor- heat	
	canth- slit for eyelids	
	capill- small tube or hair	

Cat-/ Cath-: down / against	capit-/ caput- head	
	caps- capsule	
	carcin- cancer of epithelial origin	
	cardi-/ cardio- heart	-carcinoma : cancer of the epithelial cells
	carp-/ karp- wrist	-cardia: to do with the heart
	cary-/ kary- nucleus	-cathartic: cleaning
	case- cheeselike	
	caus-/ caut- burn / burning	
	caud- tail	
	caul- stem	
Cen-/ Coen-: general	cav- cavity, hole, hollow	
	cel-/ coel- cavity / something coming through a hole e.g, a hernia	
		-cele/ -coele: hernia, tumor or swelling /cavity of the body
		-centesis: puncture
	centr- central	-centric: with a centre
	cephal-head	-cephalia: to do with the head
	cer- wax	-cerebral: pertaining to the brain
	cerat- cornea/ horny tissue	-chesia: pertaining to faeces defecation
	cerebell- little brain	
	cerebr-brain	



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Contra-: against	colp- / kolp- vagina	-clonia: re spasms
	con- / kon- dust / together, with	-cnemia: condition of leg below the knee
	cor- / coron- heart / crown	-coccus: berry shaped
	core- pupil	-comma: a piece of something
	corp- body	-crania: re the head
	cost- rib	-crasia: a condition of / a mixture
Cryo-: cold	crani- skull	-crattia: re incontinence
Crypto-: hidden	cresc- to grow / to expand	-crine: secretion eg glandular
Cyano-: blue	crur- leg	-cule/- culum/-culus: diminutive
	cuspid- point	-current: running, flowing
	cutis- skin	-cusis: hearing
	cycl- circle /cyclical	-cyst/- cystic: bladder / fluid filled sac
	cry-/kry- frost	-cyte: cell / mature cell
	cyst- bladder / sac of fluid	-cythemia / cythaemia: condition of cells of the blood
	cyt- cell	
De-/Des-/Dis-: remove, undo	dacry- tears	
Demi-: half	dactyl- fingers/ toes	-dactyl: condition of fingers or toes
	dem- people	-demic: relating to a region
	dent-/ dont-/odont- tooth, toothlike, teeth	-dendron: tree-like formation

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixed	Word root	Suffixes
Dextra-: right	der- neck	-dermia: skin
	derm-/ dermato- skin	-desis: binding / fixation
	desm- bond / bind / ligament	-desma: bridging or connecting
Di-: two	digit- finger / toe	-dipsia: thirst
Dia-: through / between / apart	dors- back	-dontia: to do with teeth
Diplo-: double / twin		-drome: that which follows a specific path
Dis-/ Dys-: difficult / wrong / incorrect		-dynamia /-dynamy: strength, power
Duo-/ Dy-: two	dur- hard	-dynia: condition of pain
E-/Ec- / Ecto: outside / external		
Ectro-: absence / congenital	echin- spike	-eal: pertaining to
Ef-: move away / go away / outside	ec- house	-ectasia /- ectasis /- ectasy: expansion stretching
Em-/en- /endo-: within inside	ele-/eole- oil	-ectomy: excision of / cutting out
Ent-: inner within	emet- vomiting	-ectopia: out of place
Ep-/ epi-: upon, in addition to, over	encephalo- brain	-edema /oedema: swelling
Equi-: equal	entero- gut / intestine / GIT	-eidos: shape, form
Eryth-: red	episi- vulva	-ellum: small, diminutive
Eso-: within, inside	erg- work/ activity	-emetic: pertaining to vomit
		-enchyma: nourishing of cells and structures

	ergy- action	-eous: composed of / like
	erot- love desire	-ergetic/-ergic: effect of activity
Eu-: normal, well		-ergy: effect or result
Ex-/exo-/extro-: external, outside, protruding		-escent: become like / emitting light
Extra-: in addition to		-esis: action / process or the result of
	faci- face	-fast: securely attached confined
	fasci- band or sheet (of CT)	-febrile: feverish
	febri- fever	-ferous: bearing
	ferr- iron	-fibroma: benign tumour of fibrous tissue
	fibr- fibrers / to do with fibres	-flect / -flex : to bend
	fila- threadlike	-fluent: to flow
Flav- : yellow	fiss- split / cleft	-form / forme: to have a shape
Fore- : before, in front of	foet-/ fet- to do with foetus	-fuge: to drive away
	for place / opening	
	fract- break	
Fund- : to pour / the body of	fus- spindle	
	galact- milk	
	gam- union	-gamy: marriage, union
	gangli- knot	-gen: that which generates
	gastri- stomach	-genesis: condition concerning information

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixed	Word root	Suffixes
	gemin- twin	-genesis: origin
	gen- race /sexual/ reproduction	-genia: condition of the jaw
	geni- chin	-genic: origin , formation
	genu- knee	-geusia / geustia: to do with taste
	genvy- under the jaw	-glia : to glue, stick, adhesion
Ges- : to carry, bear	ger-/ geri-/ geront- old / aged	
	gingivi- gum	
	glia- glue / glue like	-gluten : glue
	gloss-/glosso- tongue	-glossia: to do with the tongue
	glyc- sweet / sugar	-glycaemia: condition of sugar in the blood
Gravis-: heavy	gnath- jaw	-gnathia: condition of the jaw
Gymno-: naked	gn- know / discern	-gnomy: science of judging
	gon-/ knee / sexual /semen	-gnosia: condition of knowing
	goni- corner / angle	-gony: birth origin
	gran- grain-like/ granular	
	gravid- pregnancy	
	gyn/gyno/gynaeco- female	-gyne. female characteristics
Hapl-: single	haeme-/heme- blood	
	hallux- big toe	

Hemi-: half	hel- horn /corn	
Hetero-: different	helic- ulcer, sore	
Holo-: entire, whole	heli- sun	
Homo-/ Homeo-: same / level	helic- spiral	
Hyper-: excessive	hepat- liver	
Hypo-: less than normal	hidr-/ hidro- sweat	
	hier- sacrum	-hydat : water
	hist/ histo- tissue	-hydria: fluid level in the body
	horm- to stimulate	
	hyal- glasslike, glassy	
	hydr- water, wet / hydrogen	
	hyster -uterus	
Il- : negative, against		
Im-/ In- : in, into/onto/ no, non	iatro- to treat	-iatric: to treat / cure
Infra-: below , beneath / inside	icter- jaundice	-iatrician: physician / healer
Inter- : between	ide- mind	-iatry: specific type of medical condition
Intra- : within	idi- distinct / separate	-ible: ability, capacity
	ili- pertaining to the flank or lower abdomen	-ic /ical/: pertaining to / similar to
	ima- below, beneath, the lowest	-id: state or condition, structural element of
	inguin- groin	teeth

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixed	Word root	Suffixes
Ithy- : straight	ini- back of the head	-ism: resulting from practice or theory of
	insul- island	-ismus: spasm /contraction
	irid- iris of the eye, rainbow colours	-ist: agent, person, practitioner
	isch- suppression / stoppage	-itic: relating to
	ischi- hip	-ium: diminutive
Juxt-: next to	jug- yoke	
	jugu- throat / neck	
	juxta- next to	
Koilo-: hollow / concave	kali- potassium	-kinesia: condition relating to movement
	kaps- capsule	-kinesis: division of cells / activation
	kary-/cary- nucleus	
	kerato- horny	
Laevo-/levo-: left	kinesi- movement	
	kolp-/colp- vagina	
	labi- lip	-labial: pertaining to the lips
Leio-/lio-: smooth	lac- milk	-labile: unstable changeable
	laci- tears	

Lep-: to take or seize	lal- talk / babble	-lalia: condition involving speech
Lepto-: thin, narrow / small	lamina- layer, veneer	-lemma: sheath, envelope / confining membrane
	lapar- abdominal cavity	
	lapis- stone	
	laryng- voice box/voice	
Leuco-/Leuko/Luco-/Luko-: white/colourless/ pale	lat/later- side	-leptis / -lepsy/ -leptic: seizure
	lex- read	-lexia: reading conditions
	lien- spleen	
	lim- hunger	
Liga- bind together	lingu/lingua- tongue/tonguelike	
	lip- fat	-lipis / lipse: leave / fail / omit
	lith- stone	-lith /lithiasis: stone / re stones
Longus-: long	loc- place	-logia: condition of speech or reason
Lokus-: oblique	luc-/leuc- light /white/ pale	-logology: study or science of
	lue- syphilis	
	lumb- loin / lower back	-lucent: light admitting
	lumin- light/ cavity / channel	
	luna- moon	-lymph: clear fluid
	lyc- wolf	



PREFIXES, WORD ROOTS, SUFFIXES

Prefixes

Word root

Suffixes

	ly- dissolve		-lyse/-lyze/-lysis: to decompose / to breakdown
Macro- / Makro- : large	lys- disintegrate		-lytic: production of / decomposition
Magna- : huge	malar- cheek bone		-ma/ -mata: result of an action
Mal- : bad	mamm- breast		-malacia: softening
Malac- : soft	man- hand		-mancy: divination
	mania- obsession		-mania: obsession, compulsion
	mast-/mastoid-/maz- breast/ breastlike		-manic: specified psychosis
	maxilla- upper jaw		-mastia/ -masty /mazia/: re the breast
Medi- / Mes- : middle	maz- breast		-megaly: enlargement
Meg- / Megalo- : large, great	meat- opening /hole		-melia: re the limbs
	mel- cheek / limb / member		-mentia: re the mind
Meio- / Mio- : reduced, contraction	melan- dark / black		-mere/ -mer / meria: part of / condition of the parts
Meli- : sweet/ honey	men- periods, menstruation, menses		-meter: measurement
Meta- : subsequent transformation	mening- membrane		
	menisci- disc / crescent		
	ment- mind / chin/		
	mer- part		
	metop- forehead		

[illegible]

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixes	Word root	Suffixes
	nos- disease	
	not- back	
	nucha- neck, nape of neck	
Ob-/ Oc-: against	occipit- back of the head	
	occlus- to close or shut up	
	ocul- eye	
Oes- : inside, internal	odont- teeth	-odontia: treatment of teeth
	odyn- pain, distress	
	oedem-/edem- swelling	-oedema: condition of swelling
Olig-: scant, few	olfact- smell	-oid: resembling / form
	om- shoulder	-ol: oil
	omphal- navel	
	onc- tumour, mass, swelling / bulk / hooked	-oma: mass, tumour, lump, swelling
	onych-/onyx- nail	
	o-/oo-/ovi- egg/ovum	-on: unit
	ooph-/ oophor-/othec- ovary	
	ophthalm- eye	-opia/-opsia /-opy: condition of vision
	ops-/opt-/optic- eyesight	-orexia: condition of appetite
	orb- sphere	-osmia: sense of smell

	orch-/orchid- testis		
	or-/ora- mouth		-otomy: removal of
Ortho-: straight, correct, normal	os- mouth/ bone		
	osche- scrotum		
	osm- odour/impulse/osmosis		
	oss-/osteo- bone		-osteon/ -osteum: bone
	ot- ear		-otia /otic: ear
Pachy-: thick	paed-/ped- child		-pachy: thickening
Paleo-: ancient old			-paedic/-pedic: children
Pali-: repetition recurrence	palat- roof of the mouth		-path :individual; suffering from a disease / individual treating a disease using a system
	palpebra- eyelid /eyelash		-pathetic: relating to emotions
Pan-: everything	palpit- flutter		
Par-/ Para-: against / aside / nearby / abnormal			
Parvi-: small	papilla- nipple		
Per-: through	part- childbirth		-pathy: disease of / therapy
Peri-: around / surrounding	path- disease		-pede /-ped: number of feet
Pero-: stunted	pect-/pector- chest, breast. / thorax		-paenia/ -penia: deficiency of
	ped-/pes- foot		-pepsia /-peptic: state of digestion
	petr- stone		-phagia: eating / desire to eat -

PREFIXES, WORD ROOTS, SUFFIXES		
Prefixes	Word root	Suffixes
Phan- /Phas- visible / speak	phac-/phak- lens	-phasia /-phemia: re speech
Phen-: light, bright	phag- eater , to eat	-philia /-philic /-phily: love of, affinity with
	phalan- fingers / toes	-phobe /-phobia: resisting / avoiding, fearing, dreading
	phall- penis, penile	-phoresis: transmission
	phas- speech	-phoria: tendency to /emotional state/ visual axes
Phleg-: inflammation	phleb- vein, venous	-phragm: separation
	phren- mind	-phrasia: re speech
	physi- natural	-phrenia: re the mind
	pil- hair	-phrenic: re the diaphragm
Plan-: flat	plantar- sole of the foot	-physis: growth, growing
Plat- /platy-: flat/ broad, wide	plas- grow and form	-plakia: patches on membrane
Pleo-: many	pleo- many	-plasia: condition / formation
Pluri-: many more	pleur- walls of the lungs, thorax	-plasty: repair of / involving surgery
Poikilo-: irregular / abnormal	plic- fold ridge	-plegia /-plegic: paralysis
Polio-: grey	pne-/pneum- breath, air, lungs, gas	-plex/-plexus: network
	pod- foot	-plexia /-plexy: condition resulting from a stroke
	pollex- thumb	-pnea/-pnoea: beathing, re respiration

		poples- posterior part of the knee		
Poly-: many		pont- bridge		-podia: re feet
Post-: after		por- passage / pore/ callus		-poesis: formation / development
		presby- old		-pore: passageway
Prae-: in front of / young		proct- anus, anal / rectum		-proctia: re the anus
Pre-: before		prosop- face		-prosopia: re the face
Presby-: old		psor- to itch		-pterygium: re the conjunctiva
Prim-: first		psych- mind		-ptosis: downward displacement
Pro-: before, in front of		pter- wing / feather		
		ptoma- corpse		
Pronus-: face down		ptyal- saliva		-ptysis: spitting
Pseudo-: false		ptysis- to cough or spit		
		pub- adult		-pubic: frontal part of the pelvis
		puer-/pub- child/infantile/ undeveloped		-pulsion: push
Quad-: four		pulm- lung		-pyrexia: re fever
		pur-/py-/pyron- pus,		
		pyel- renal pelvis / kidney		
		rachi- spine		
		radi- radiation, ray		
		radi-/radicul- root/ tooth / nerve		

PREFIXES, WORD ROOTS, SUFFIXES		Word root	Suffixes
<b>Prefixes</b>			
Re-: return / again / contrary		rami- branch	
Retro-: behind / go back		rect- rectal / straight	-rrhagia/-rhagia: excessive flow/ rupture
Rhabdo-: striped		ren- kidney	-rrhea /-rrhoea: flow, discharge
Rhod- / Rub-: red		rhabdo- stick, straight /rod	-rrhaphy: suturing in place
		rhachi- spine, vertebral column	
		rhe- flow	-rrhea: flow
		rhig- stiff / cold	
		rhin- nose /noselike	
		rhiptid- wrinkles	
		rhiz- root	
		rost- beck	
		rot- to turn	
Schiz-: split		sangui- blood	
Scirrho-: hard		sanita- health	
Sclera-: hardening		sapr-/seps- decaying	-scelia: re legs
Scolio-: twisted		sarc-/sark- muscle / network / flesh	-sclerosis: hardening
Semi-: half		scaph- boatlike	
Sicc-: dry		scat- faeces, dung	

Sinistro-: left	scel- leg	
Spano-: few / scant	schist- split, fissured /cleft	
	schiz- divided	
	scia-/skia- shadow	
	scolec- worm	
	scope- examine	
	scyt- skin	
	sect- to cut	-sect: to cut
	sens- perception, feeling	-sepsis: condition of decay
	seps- decay	
	sept- wall /to separate/ border	
	sial- saliva	
	sider- iron	
	sin- hollow cavity	
	soma-/somatic- body	
	somn- sleep	
	spasm- tighten / straighten, cause rigidity	-spasm: involuntary contraction
	sperm-/spermato- seed	
Spheno-: wedge	sphen- wedge	
Spiro-: coil	sphym- pulse	-sphygmia: condition of the pulse
	spin- spine	



PREFIXES, WORD ROOTS, SUFFIXES		
Prefixes	Word root	Suffixes
	spir- breath	
	splanchn- visceral, intestines	
	splen- spleen	
	spod- waste materials	
	spondyl- vertebrae spinal column	
	spongi- sponge	-stage: phase
	squam- scale	-stalsis: contraction of the alimentary canal
	stann- tin	
Sten-: narrow, constricted	stas- standing walking stopped	
Ster-: solid	steat-/steap-/stear- fat	-stasis: to stand to stop
Strept-/ Stroph-: twisted	stell- star	
	sterc- faeces	
	stern- shield	
	steth- chest	-stole: condition of organs
	stoma- mouth / opening /covering	-stoma: mouth, opening
	strab- to squint	
	strati- to layer/ layers	
	stri- line	
	strum- goiter	
Sub-/Suf-/Sup-: under	styl- stake pole	-strophy: to twist, turn

Super-/Supra-: over above	succ- juice	
Supinus-: face up	sud- sweat	
Sy-/Sym-/Syn-/Syl-: together, union	syndesm- connective tissue	-synthesis: formation of
	syring- tube	
	tabe- to waste away	
Tach- /Tachy-: fast	tact- to touch	-taxia: condition of impairment / an arrangement
Taut-: tight same	taenia-/tenia- a ribbon / a band	
	tal- ankle	
	talip- club footed	
	taph- grave	
	tars- eyelid / edge of foot	
	techn- the art of	
Tect-/Teg-: covering	tect- roof	
Tors-: twisted	teg- covering	
	tela- weblike	
	tele/tel- end / far away	
	temp- time	-thecium: sack, container
	teno-/tend- rope	-thelium: layer of tissue
	terat- monster	

**Prefixes**

**Word root**

**Suffixes**

test- testimony, witness / testicles

thec- sheath

thel- nipple

thely- female

thenar- palm of hand /sole of foot

therap- treatment, cure

thix- touch

thora- chest

thrix- hair

thromb- clot, lump

thym- thymus, mind or spirit

top- place /to place

tox- poison

trachel- neck windpipe

tract- draw, drag

troph- food / to feed

typ- model

ul- gums / scar

ungu- nail

-therapy: re treatment

-thetic: to put, to place

-thymia: re the mind and emotions

-trichia: re hair

-tomy /-tome /-tomic: re incisions, cutting

-tonia: re muscle contraction

-tresia: re perforation

Trop-: turn / change

Ultra-: beyond

Uni-: single, one

ur-/ urin-/uron- urinary tract

uter- uterus

vas- vessel / duct

ven- vein

venter- belly / hollowed part

ventr- front

vermi- wormlike

vesic- bladder / blister

vir- virus

viscer- internal organs

vivi- living

xen- different foreign

xiphi- swordlike

zyg- yoke / union / pair

-zoite: simple organism

-zyme: re enzymes

## Common organ specimens sent to Pathology Laboratories

Tissue / Organ (Specimen types)	Non-Tumor Pathology	Tumor Pathology
Appendix (appendectomy)	appendicitis mucocele	carcinoid tumor 1° or 2° tumor (rare)
Artery (Bx)	arteritis atheroma aneurysm	chemodectoma (eg. carotid body tumor)
Bladder (Bx / cystectomy)	cystitis diverticulae fistulae tuberculosis schistosomiasis	transitional cell Ca SCC adenocarcinoma
Bone / Bone Marrow (Bx)	osteoporosis osteomalacia osteomyelitis Paget's disease	osteochondroma myeloma metastatic tumor (eg breast, bronchus, thyroid, prostate, kidney)
Breast (Bx / mastectomy)	cysts fibrocystic disease abscess fat necrosis	adenoma fibroadenoma adenocarcinoma Paget's disease of the Nipple
Bronchial (Bx)	inflammation squamous metaplasia	SCC oat cell Ca
Cervix (cone Bx / punch Bx)	inflammation dysplasia (CIN)	SCC SCC CIN genital warts
Colon / Rectum (Bx / colectomy)	UC Crohn's disease amyloidosis fistulae amoebiasis diverticular disease	adenomatous polyps adenocarcinoma lymphoma polyps
Endometrium (Bx / curettings)	endometritis abnormalities of the menstral cycle hyperplasia	adenocarcinoma sarcomas polyps

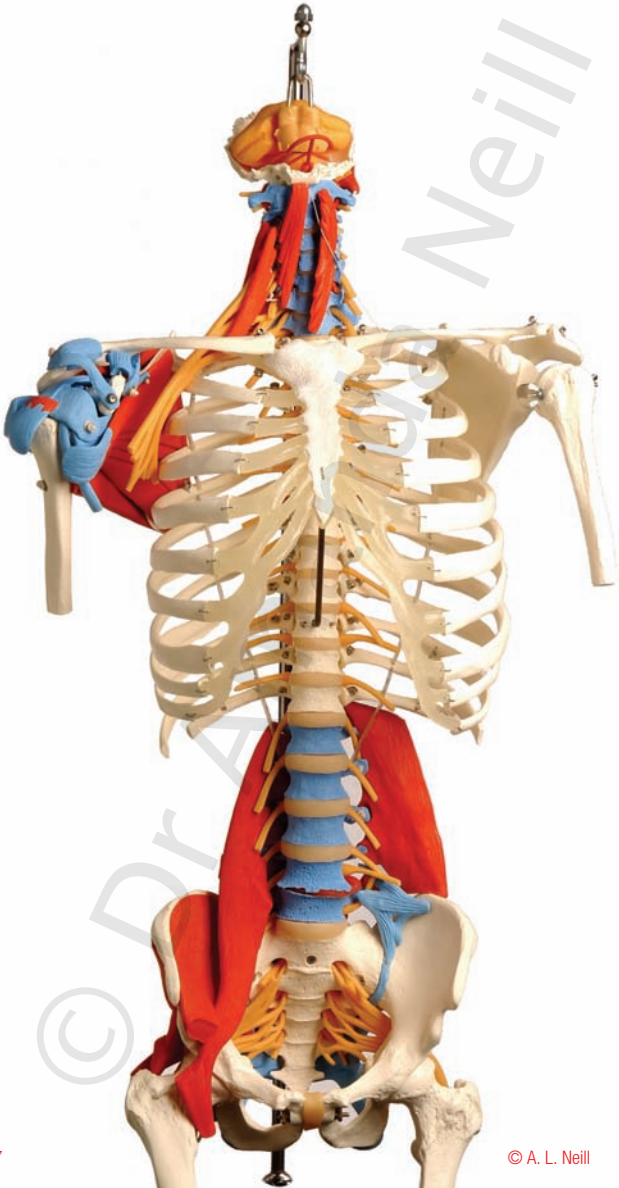
Epididymis (Bx)	cysts inflammation tuberculosis	adenocarcinoma
Fallopian tubes (Bx / salpinx)	salpingitis ectopic pregnancy endometriosis	adenocarcinoma
Gall bladder (Bx / cholecystectomy)	cholecystitis calculi	adenocarcinoma
Joints / Tendons / Synovial membrane (Bx / curettings)	arthritis crystal synovitis (eg gout)	sarcoma
Kidney (Bx / nephrectomy)	amyloidosis glomerulonephritis pyelonephritis cysts calculi tuberculosis	adenocarcinoma transitional cell Ca - pelvis
Larynx / Vocal Cords (Bx)	laryngeal nodules inflammation	polyps SCC
Liver (Bx / lobectomy)	hepatitis cirrhosis obstructive jaundice sarcoidosis amyloidosis storage disorders	hepatocellular Ca lymphoma 2° tumor (eg. breast, colon, pancreas and stomach)
Lung (Bx / pneumectomy)	pneumonia	SCC oat cell Ca adenocarcinoma 2° tumor (eg. bone, breast and brain)
Lymph node (Bx / radical removal of LN group)	reaction to inflammation tuberculosis sarcoidosis	Hodgkin's lymphoma / non-Hodgkin's lymphoma 2° tumor (eg. breast, colon, lung, testis)
Muscle (skeletal) (Bx)	myopathies neuropathic atrophy	rhabdomyosarcoma
Nasal mucosa (Bx)	inflammation	mucoepidermoid Ca polyps SCC

Oral cavity (Bx)	cysts (dental) inflammation	polyps salivary gland tumors - adenocarcinomas SCC
Oesophagus (Bx)	oesophagitis strictures ulceration (peptic)	SCC
Ovary (Bx / oophrectomy)	cysts endometriosis	benign and malignant tumors of respective tissues epithelium = mucinous cystadenoma stroma = thecoma germ cells = dermoid cyst, dysgerminoma 2° tumor (eg. stomach)
Pancreas (Bx)	cysts pancreatitis	adenocarcinoma (exocrine) apudomas (endocrine)
Parathyroid gland	hyperplasia	adenoma
Placenta / umbilical cord	malformations infarctions	choriocarcinoma hydatiform mole
Pleura (Bx)	inflammation tuberculosis sarcoidosis	mesothelioma 2° tumor (eg. breast, lungs)
Prostate gland (Bx / prostatectomy)	hyperplasia prostatitis	adenocarcinoma
Salivary gland (Bx)	calculi sialoadenitis	adenolymphoma (Warthin's) mucoepidermoid tumor pleomorphic adenoma
Skin / hairy skin (Bx / punch Bx / curettings / shaves / ellipsoid excision / Mohs sections)	cysts dermatitis reactive changes fungal infections alopecia psoriasis	adenocarcinoma BCC carcinoid tumor CIN - Bowen's disease lymphoma melanoma naevi skin tags / polyps SCC warts

Small intestine (Bx / resection of the small bowel partial or complete)	Crohn's disease coeliac disease diverticulae infarction	adenocarcinoma carcinoid tumor lymphoma
Spleen (Bx / splenectomy)	amyloidosis hypersplenism syndromes thrombocytopenic purpura traumatic rupture	lymphoma leukaemia
Stomach (Bx)	gastritis peptic ulceration	adenocarcinoma leiomyoma lymphoma
Testis (Bx / orchidectomy)	hydrocoele orchiditis tuberculosis	lymphoma teratoma
Thyroid (Bx / thyroidectomy)	nodular goitre Hashimoto's thyroiditis thyrotoxic hyperplasia	adenoma adenocarcinoma leiomyoma (fibroid) medullary carcinoma (+ amyloid)
Uterus (Bx / hysterectomy)	abnormal cyclical bleeding adenomyosis endometriosis	leiomyoma (fibroid) adenocarcinoma (of endometrium)
Vulva (Bx / excision)	dysplasia inflammation leukoplakia	SCC CIN warts



# Assembly - Building the Body

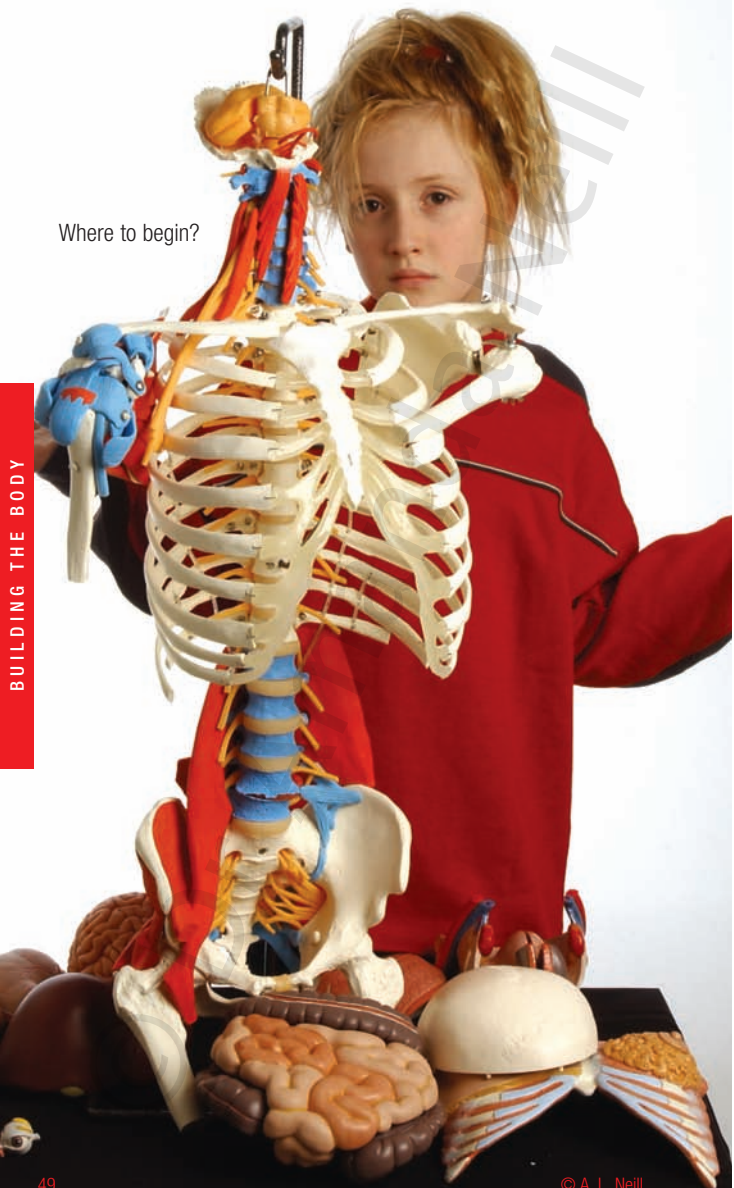


BUILDING THE BODY



Where to begin?

BUILDING THE BODY



What no Brains ?



Getting a-Head

BUILDING THE BODY





Oh ... have a Heart!

BUILDING THE BODY

Placing.....



Listening ....





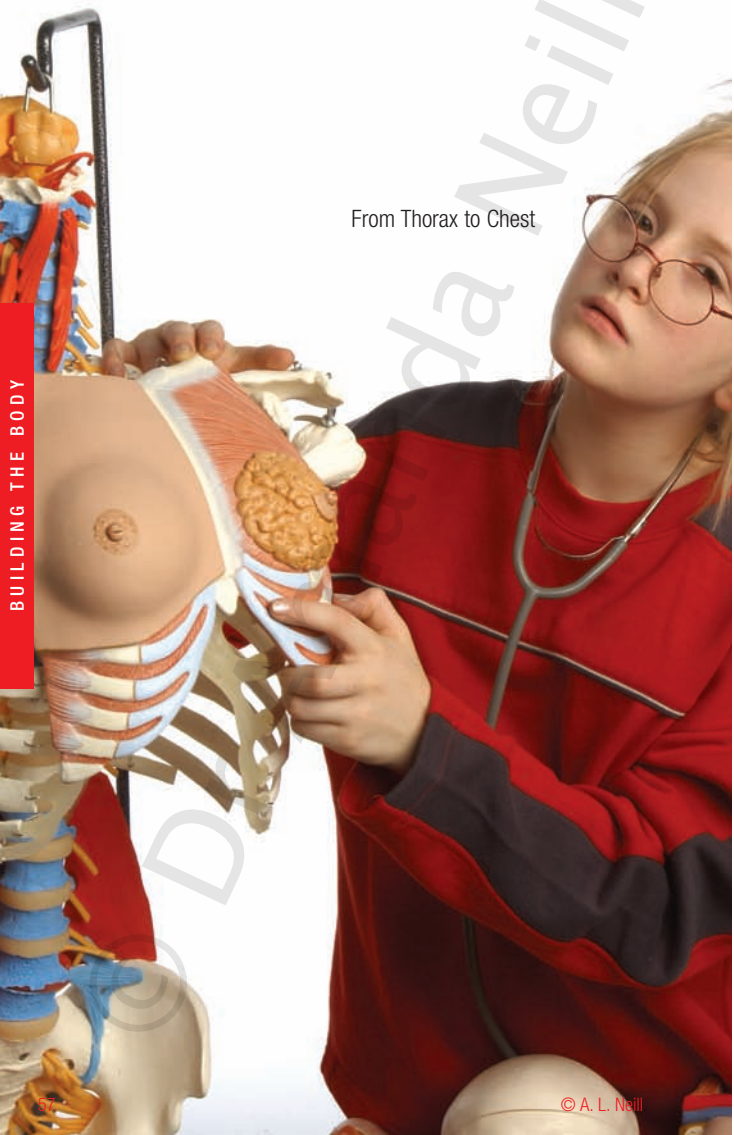
You do have a Heart !!

Lungs - Right and Left or  
Left and Right?



From Thorax to Chest

BUILDING THE BODY



Pretty Gutsy!!!







In go the Intestines

putting it together

BUILDING THE BODY

Do you have the Stomach  
for Anatomy?

A Liver to live!!!

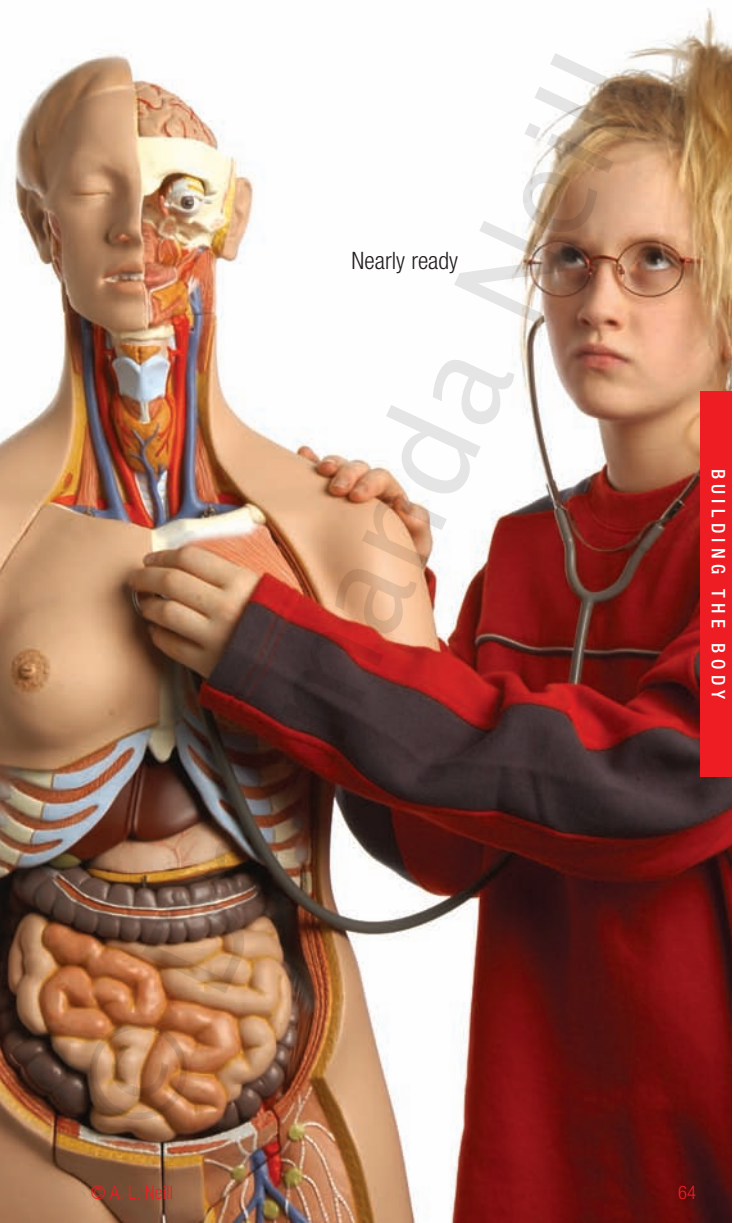




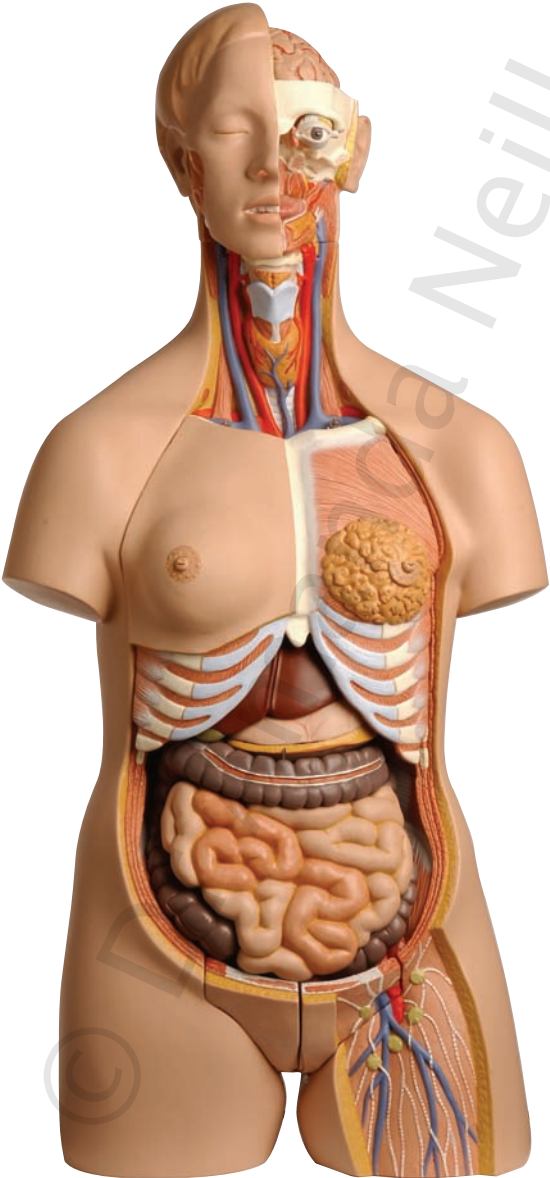
What's all this?

BUILDING THE BODY





Nearly ready





Model complete.



## A

**a- without, lack of, no**

**ab- away from , negative**

abdomen: Lt. abdomen = the belly, the part of the trunk between thorax and the perineum,

abduction: Lt. ab = from, and ductum = led, hence, movement from; verb - abduct. (≠adduction)

aberrant: Lt. ab = from, and errare = to wander, hence, deviating from normal.

**Absorption** (ahb-SORB-shun) the passage of digested foods from the GIT & into the BS.

**ac- toward, near to, addition to**

accessory: adj.Lt. accessum = added, hence, supplementary.

acetabulum: Lt. acetum = vinegar (cf. acetic), and abulum = small receptacle, a vinegar cup, the socket for the head of the femur, adj.- acetabular.

**Acini** (AS-ih-nee) clusters of cells in the pancreas that secrete digestive enzymes. sing. acina adj. acinar (AS-in-us)

**Acoustic** (ah-COOS-tic) pertaining to hearing and sounds

acoustic: adj.Gk. akoustikos, related to hearing.

acromion: Gk. akros = summit (c.f. Acropolis) and omos = shoulder, the tip of the shoulder.

**Actin** (AHK-tihn) the contractile protein that makes up the major portion of thin filaments in muscle fibers.

**acu- sudden, sharp, severe**

**ad- near, toward**

adduction: Lt. ad = to, and ductum = led, hence, movement towards; verb - adduct. (≠abduction)

adenoid: Gk. aden = a gland, eidos = shape or form.

**Adenohypophysis:** also = the anterior lobe of the pituitary gland. It is composed of glandular epithelium. The adenohypophysis secretes numerous Hs, several of which affect the activity of other endocrine glands.

adhesion: Lt. ad = to, and haesus = stuck

**Adipose** (AHD-ih-pose) a CT whose cells (adipocytes) are highly specialized for lipid storage.

adipose: Lt. adeps = fat, hence fatty

adrenal: Lt. ad = towards, at, ren = kidney, situated near the kidney (see suprarenal)

- A** adrenergic: adj. Gk. ergon = work, stimuli which cause the  
**B** adrenal (suprarenal) gland to produce adrenaline. A term used to  
**C** specify neurons or pathways which use adrenaline as a  
transmitter.
- D** **Adrenal cortex** (ah-DREE-nal KOR-teks) the outer region of the  
**E** adrenal glands, located superior to each kidney. It secretes steroid Hs,  
including glucocorticoids & mineralocorticoids.
- F** **Adrenal glands** two endocrine glands, each situated superior to a  
**G** kidney, (also = suprarenal glands).
- H** **Adrenal medulla** the inner region of the adrenal glands, which  
secretes epinephrine and norepinephrine (also adrenaline  
noradrenalin).
- I** **Adventitia** (ahd'-ven-TISH-yah) the outermost covering of an organ or  
**J** tissue (see Serosa, Tunica Externa).
- K** **af- near, toward, addition to**  
**L** afferent: adj. Lt. af = to, and ferent = carrying (cf. ferry), hence,  
carrying to, e.g., axons carrying information from retina to  
lateral geniculate nucleus are afferents to that nucleus.
- M** **ag- near, toward, addition to**  
**N** agger nasi: Lt. = eminence of the nose.  
agonist: Gk. agonistes = rival, hence, a muscle in apparent  
contest with another, (a prime mover). adj.- anagonist.
- O** **Ala** (AY-lar) referring to the wing or flattened part of a bone  
**P** particularly if there are other shapes in the bone which are not wide  
and flat as in the Sphenoid or the inominate / hip.
- Q** ala: Lt. wing, hence a wing-like process; pl. - alae.  
**R** alaeque: Lt. ala = wing (ala of nose), suffix -que = and, hence  
**S** levator labii superioris alaeque nasi muscles = lifter of the  
upper lip and ala of nose.
- T** **alb- white**  
**U** alba: Lt. albus = white  
albicans: Lt. = becoming white; albus = white  
**V** albuginea: Lt. albus = white, Gk. gen = form, like boiled white of  
an egg.  
**W** alimentary: adj. Lt. alimentum = food, e.g., alimentary canal.
- X** **all- other, different, abnormal**  
**Y** allantois: Gk. allantos = sausage, eidos = like, form.
- Z** **allo- other, different, abnormal,**  
**Alpha cell** a type of cell in the pancreatic islets of Langerhans that  
secretes the H glucagon.



alveolus: Lt. a basin, hence any small hollow. pl. - alveoli, adj. - alveolar, after holes in a tissue eg the lung – alveolar bone in the maxilla.

**Alveolar duct** (awl-VEE-o-lar) a branch of a respiratory bronchiole w/in the lungs leading to alveoli & alveolar sacs.

**Alveolar sac** two or more alveoli which share a common opening from an alveolar duct.

**Alveolus** (awl-VEE-o-lus); a microscopic air sac within the lungs. pl - alveoli

**ambi- both, about, around**

ambiguus: adj. Lt. = doubtful (nucleus ambiguus).

ampulla: Lt. = a two-handed flask, a local dilatation of a tube.

amygdaloid: adj. Gk. amygdala = almond, and eidos = shape or form, amygdaloid is almond-shaped.

amylacea: Gk. amylon = starch, hence, starchy.

**an- without, lack of, not**

**an- up, back, again**

anaesthesia: Gk. an = negative, and aisthesis = sensation, loss of sensation;

**Anal canal** (A-nawl) the terminal 2 or 3 cm of the rectum. It opens to the exterior at the anus.

analgesia: Gk. an = negative, and algesis = pain, insensibility to pain; adj. - analgesic.

analogous: Gk. ana = up, apart, towards, and logos = word. A part with similar function through different morphology e.g., fish gills and mammalian lungs (c.f. homologous).

anastomosis: Gk. ana = of each, and stoma = mouth, hence the end-to-end continuity of 2 vessels.

**Anatomical position** the reference position, in which the subject is standing erect with the feet facing forward, arms are at the sides, & the palms of the hands are facing forward (the thumbs are to the outside).

**Anatomy** (ah-NAH-to-mee) the study of the structure of the body.

anatomy: Gk. ana = up, and tome = a cutting, hence cutting up of a body (c.f. dissection).

anconeus: Gk. ancon = elbow, hence the muscle attached to the (lateral surface of the) olecranon.

aneurysm: Gk. angeion = blood vessel (BV), and eurys = wide, a pathological dilatation of a BV.

angiography: Gk. angeion & graphe = a record; picture of a BV injected with radiopaque material.



- A** anhidrosis: (anhidrosis, anidrosis) Gk. an = negative, and hidros = sweat; absence of sweating, typical of skin deprived of its sympathetic innervation.
- B**
- C** ankle: the region between the leg and the foot.
- D** **ankyle- bent, crooked**
- E** **Annulus** (AN-yoo-lus) the outer fibrous ring of the intervertebral disc
- F** annulus: diminutive of Lt. anus = ring, hence little ring. (AS anulus)
- G** **anomalo- uneven, irregular**
- H** antagonist: Gk. anti = against, and agonistes = rival, hence a muscle which may oppose an agonist. adj.- agonist.
- I** **ante- before**
- J** anteflexion: Lt. ante = before, and flexere = to bend, anterior angulation between the body and cervix of the uterus.
- K** anterior: comparative of Lt. ante = before, in front.
- L** **Anterior** (ahn-TER-ee-or) toward the belly or front of the body. (in humans, see also ventral)  $\neq$  posterior
- M** **Anterior horn** a region of the SC grey matter containing the cell bodies of motor neurons. (see also the ventral horn).
- N** **Anterior root** the structure emerging from the SC on its anterior aspect that contains axons of motor neurons. (see also the ventral root).
- O** **Anterior pituitary gland** the portion of the pituitary gland at the base of the brain composed of glandular epithelium. (see also adenohypophysis)
- P** **antero- anterior, forward**
- Q** anteversion: Lt. ante = before, and versum = turned, hence, the anterior angulation b/n cervix uteri & the vagina.
- R** **anti- against, combating**
- S** antrum: Gk. antron - cave, hence a space in a bone or organ.
- T** annulus: diminutive of Lt. anus = ring, hence little ring. (AS annulus)
- U** **Anus** (AY-nus) the distal end and outlet of the rectum.
- V** anus: Lt. = ring, adj.- anal.
- W** **Aorta** (AY-OR-tah) the main trunk of the systemic circulatory circuit. It originates from the L ventricle.
- X** **Aortic** semilunar valve - one of 4 heart valves, it consists of 3 cusps that are attached to the wall of the aorta near its origin from the L ventricle.= aortic valve.
- Y** **ap- toward , near to**
- Z** **ap- away from derived from, separation**
- Aperture** (a-PET-tyuu-a) an opening or space b/n bones or w/n a bone.

**Apex** (A-pehks) - the extremity of a conical or pyramidal structure. The apex of the heart is the rounded, inferior most tip that points to the L side.

aponeurosis: Gk. apo = from, and neuron = tendon (later applied to nerve cell and its fibres), used for sheet-like tendons. Adj. - aponeurotic.

apophysis: Gk. apo = from, and physis = growth, a bony process - the articular process of a vertebra; adj. - apophysial.

appendage: Lt. appendere = to hang on, supplement.

appendix: Lt. appendere = to hang on, supplement.

apposition: Lt. appositus = placed at, hence, in contact, in juxtaposition.

aqueduct: Lt. aqua = water, and ductus = drawn or led off, a channel for conducting fluid, e.g. the cerebral aqueduct of the midbrain, which transmits fluid from the 3rd to the 4th ventricle.

aqueous: Lt. aqua = water hence watery or water-like

**Arachnoid** (a-RAK-noyd) the middle of 3 CT coverings (meninges) of the brain and the SC. (Pia, Arachnoid & Dura from inner to outer layers)

arachnoid: adj. Gk. arachne = spider, and eidos = shape or form, hence like a spiders web. This middle layer of the three meninges is spread web-like over the brain.

**arch- chief, first, beginning,**

arcuate: Lt. arcuatum = curved or arched.

arcus: Lt. an arch, Lt. arcuatum = curved or arched area: a part of a surface.

areola: Lt. small, open space.

**Areolar** (a-REE-o-lar) a type of CT with sparse protein fibers in the matrix (loose CT). Also the tissue around the nipple

arm: the upper limb, between shoulder and elbow.

**Arrector pili** (ah-REK-tor PI-lee) muscle fibers attached to hair w/n the skin.

arrector: Lt. adrectus = raised, hence, arrector pili = a hair-raising muscle.

**Arteriole** (ar-TEER-ee-ol) a small tributary from a larger artery that delivers blood to a capillary.

**Artery** (AR-ter-ee) a BV that carries blood away from the heart.

artery: Lt. arteria (to take away)

arthrodesis: Lt. arthro = joint, desis = to stiffen, hence the fusion of a joint or the stiffening of a joint.

**A Articular cartilage** (ar-TIH-kyoo-lar KAR-ti-lej) the cartilage that covers the end of a bone, where it forms a joint with another bone.  
**B Articulation** (ar-tik'-yoo-LAY-shun) = joint, which is a point of contact b/n 2 opposing bones.

articulation: Lt. artus = joint, hence, articulate - to form a joint.  
arytenoid: Gk. arytaina = pitcher, and eidos = shape or form, the arytenoid cartilage curves like a spout

**as- toward , near to**

**Ascending colon** (ah-SEN-ding KO-lun) a segment of the large intestine that extends from the caecum to the transverse colon = Right colon.

aspect: a view of more than one surface.

aspera: Lt. rough.

asterion: Gk. asterios = starry.

**asthen- weak, weakness**

**Astrocyte** (AS-tro-site) a neuroglial cell type common in the CNS, particularly the brain. Astrocytes are believed to form a structural framework b/n neurons, BV, and other neuroglial cells by their attachments. They are also capable of impulse transmission.

astrocyte: Gk. astron = star, and kytos = cell, hence a star-shaped (neuroglial) cell.

ataxia,: Gk. a = negative, and taxis = order, hence inability to coordinate the voluntary muscles.

atlas: Gk. atlao = I sustain. Atlas was the mythical god who sustained the globe on his shoulders. the 1st vertebra sustains the skull, and its upper surface bears 2 concavities to do this.

atresia: Gk. a = negative, and tresis = a hole, an absence or closure of a body orifice or tubular organ

**atreto- closed, imperforate**

**Atrium** (A-tree-um) One of 2 superior chambers of the heart. pl.- atria.

atrium: Lt. = entrance hall, adj.- atrial.

atrophy: Gk. a = negative, and trophe = food, hence wasting from starvation.

auditory: Lt. audire = to hear, hence, pertaining to the ear.

auricle: Lt. auricula = a little ear - part of the external ear

auricular - ear-shaped

auscultate: Lt. ausculto = to listen to

**auto- self, spontaneous**

autonomic: adj.Gk. auto = self, and nomos = law, hence self-regulating.

**aux- help, growth, increase**

**Axial** (AKS-ee-el) refers to the head and trunk (vertebrae, ribs and sternum) of the body - axial skeleton including the skull and the vertebral column

axilla: Lt. armpit.

axis: Lt. axis = the central line of a body or part thereof, especially the imaginary line around which rotation takes place adj. axial.

**Axon** (AKS-on) a long process of a neuron that carries a nerve impulse away from the cell body.

axon: Lt. axis = axis, hence the main process of a neuron conducting impulses away from the cell body.

azygos: adj.Gk. a = negative, and zygos = paired, hence, unpaired.



# A B

C **bar- pressure**

D **bary- low, heavy, deep difficult**

E **Basement membrane** (BM) a thin layer of extracellular material and CT stroma that underlies epithelium.

F **basi- foundation, base**

G basilar: adj. Lt. basis = base.

H basilic: adj. Gk. basilikos = royal (king-sized).

I **Basophil** (BAS-oh-fil) a type of WBC that is characterized by large cytoplasmic granules that stain blue with basic dyes.

J **Beta** (BEE- tah) **cell** a cell in the pancreatic islets of Langerhans that secretes the H, insulin.

K **bi- twice, two, double (see di)**

L biceps: Lt. bis = double, and caput = head, hence 2-headed, adj.- bicipital.

M bifid: adj. Lt. bis = double, and findo = to split.

N bifurcate: Lt. bis = double, and furco = fork, hence to divide into two.

O bilateral: Lt. bi = two, lateral = side, hence, pertaining to two (both) sides.

P **bin- twice, two, double**

Q bipennate: adj, Lt. bis = double, and pinna = feather, hence converging from 2 sides

R **Biopsy** (BYE-op-see) removal of a piece of living tissue for examination.

S **blast- undifferentiated, immature**

T **Blind spot** a region of the retina where no photoreceptive cells are present, due to the exit point of the Optic N.

U **Body cavity** a space in the body that is internally lined by a membrane, & contains structures including organs.

V **Bone** a CT that contains a hardened matrix of mineral salts and collagen fibers. Its cells include osteocytes, which are embedded within lacunae, and the free-roaming osteoblasts and osteoclasts.

W border: see margin.

X **Bowman's capsule** (BO-man-z CAP-sewl) the part of the kidney nephron that surrounds the glomerulus, (see glomerular capsule).

Y brachiocephalic: Lt. brachium = arm, and Gk. kephale = head, a BV related to the upper limb and head.

Z

**Brachial** (BRAY-kee-al) arm mainly to do with the upper arm

brachium: Lt. = arm, adj.- brachial.

**brachy-** short

**brady-** slow  $\neq$  tachy

**Brain stem** the inferior portion of the brain that consists of the midbrain, pons, and medulla oblongata.

branchia: Gk. = gills, adj.- branchial.

bregma: Gk. = moist, referring to the site of the anterior fontanelle (ie a little fountain) the site of junction of the coronal and sagittal sutures, where the brain can be felt pulsating in infancy.

**brevi-** short

brevis: Lt. = short - cf. brief.

**Bronchiole** (BRONG-kee-ol) a small bronchus - a series of small tubes that arise as branches from tertiary bronchi w/n each lung (bronchi have cartilage in their walls, bronchioles do not)

**Bronchus** (BRONG-kus) any one of the air passageways that carry air between the trachea and the bronchioles. pl. - bronchi. adj. bronchial

**Brunner's glands** mucous glands located w/n the submucosa of the small intestine.

buccal: adj.Lt. bucca = cheek.

buccinator: Lt. = trumpeter - this is the muscle which blows air out from the cheek

bulbus: Lt. = bulb or onion.

bulla: Lt. = bubble.

bursa: Gk. = a purse, hence a flattened sac containing a film of fluid.



Bone Cutter

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# C

## **cac- bad, diseased, deformed, ill (kak)**

**Caecum** (SEE-kuhm) the proximal end of the large intestine which receives the terminal ileum of the small intestine. AS Cecum

caecum: Lt. = blind. (AS cecum)

## **caen- new, recent (seen)**

calcaneus: Lt. calx = heel, hence the bone of the heel.

calcar: Lt. = a spur.

calcar avis: Lt. the spur of a bird, hence a spur-like elevation.

calcarine: Lt. calcar = spur, hence spur-shaped.

calf: the soft tissue swelling at the back of the leg.

calix: Lt. = a wine-cup (plural - calices) alternative spelling calyx.

callosum: Lt. callum = hard.

callous Gk. = hard (AS callus)

**Callus** a disorganized pattern of woven bone formed after a fracture.

calotte: calvaria from which the base has been removed

**Calvaria** (KAL-vai-reea) refers to the cranium w/o the facial bones attached.

calvaria: Lt. calva = bald head, part of the skull containing the brain - i.e. cranium minus the facial skeleton.

calyx: Lt. = a wine-cup (plural - calyces) found in the renal pelvis.

canal: Lt. canalis = a water-pipe or canal.

**Canaliculus** (kan'-al-LIK-yew-lus) a small channel w/n compact bone tissue that connects lacunae. pl. canaliculi. diminutive of canal.

cancellous: adj. Lt. cancelli = grating or lattice.

canine: adj. Lt. canis = dog.

canthus: Gk. kanthos - angle b/n ends of rims.

**Capillary** (kah-PIL-lar'-ee) a microscopic BV that interconnects arterioles with venules. The capillary wall is a single cell layer in thickness, and is the only site of nutrient diffusion b/n the BS and body cells.

capillary: Lt. capillaris = hair-like, a very thin BV.

capitate: adj. having a caput from Lt. capitis = of a head (q.v.).

capitulum: diminutive of caput, Lt. = head.

**Capsule** (KAP-syoo-l) an enclosing membrane

capsule: Lt. capsula = box, hence an enclosing sheet.

caput: Lt. = head. Capitis - of a head, adj. - capitate = having a head (c.f. decapitate).

caput medusae: Lt. caput = head, Medusa = Gk. mythical female with ugly and with snake like hair.

**Carcinoma** (KAR-sin-oh-mah) cancer of epithelial origin

carcinoma Lt. carcin = crab -oma = lump

cardia: adj. Gk. kardia = heart. adj. cardium pertaining to the heart  
adj. cardiac

**Cardiac muscle** (KAR-dee-ahk MUS-ehl) one of 3 types of muscle tissue. It is characterized by striations and involuntary contractions, and makes up the bulk of the heart wall.

cardinal: Lt. cardinalis = principal, of primary importance.

**Carina** (KAR-rin-ah) the point of bifurcation of the 2 primary bronchi in the lung

carina: Lt. = a keel.

carneae: Lt. carnea = fleshy. (kar-nee)

carotid: Grk. karoō, = to put to sleep; compression of the common or internal carotid artery causes coma.

carpus: Gk. = wrist, adj. - carpal.

**Cartilage** (KAWR-tih-leh) a type of CT characterized by the presence of a matrix containing a dense distribution of proteins and a thickened ground substance. The matrix is mainly secreted by chondroblasts.

cartilage: Lt. = gristle; adj. - cartilaginous.

caruncle: diminutive of Lt. caro = flesh, hence, a small fleshy elevation.

cauda: Lt. = tail, adj. - caudate - having a tail.

cauda equina: Lt. = a horse's tail.

caudal: Lt. cauda = tail, hence toward the tail, inferior (in human anatomy). note legs are inferior not caudal

caudate: Lt. cauda = tail, hence having a tail.

cava: Lt. cavum = cave, hollow.

cavernous: Lt. containing caverns or cave-like spaces.

**Cavity** (KAV-it-ee) an open area or sinus within a bone or formed by 2 or more bones. (in dentistry a pathological hollow in the bone – tooth).

cavity: Lt. cavitas = a hollow.

cavum: Lt. = cave.

cecum: Lt. = blind. (AS caecum)

celiac: adj. Gk. koilia = belly. (AS coeliac)

**Cell** the basic living unit of multicellular organisms.

**Cell body** the portion of a neuron containing the nucleus and much of the cytoplasm. (also = the soma).



- A celom: Gk. koilos = a hollow (AS coelom)
- B **cen- general, common - new, recent (sen)**  
**centi- hundredth part, hundred (sen-tee)**
- C **Central fovea** (FO-vee-ah) a small depression in the center of the macula lutea of the retina. It contains cone cells (only), and is the area of optimal visual acuity (clearest vision).
- D
- E **Central nervous system (CNS)** A major division of the nervous system (NS) that contains the brain & spinal cord (SC).
- F **Central vein** when pertaining to the liver, the central vein is a vein located in the center of a liver lobule that conveys blood from the hepatocytes to the hepatic vein.
- G
- H **Centriole** (SEHN-tree-ol) cylindrical structures within the cytoplasm of a cell, consisting of microtubules, which play a role in cell division.
- I central: adj. Lt. centrum = centre.
- J centrum: Lt. = centre.
- K **cephal- head**  
**Cephalic** (KEF-al-ik) pertaining to the head
- L cephalic: adj. Gk. kephale = head.
- M **cer- wax (ser)**  
**cerat- cornea /horny tissue (kerat)**
- N **Cerebellum** (ser'-eh-BELL-uhm) a functional region of the hindbrain located inferior to the cerebrum. It coordinates muscle movement.
- O cerebellum: diminutive of Lt. cerebrum = brain.
- P **Cerebral cortex** the outer layer of the cerebrum, which is composed of grey matter.
- Q **Cerebrum** (SER-ee-bruhm) the largest functional region of the brain, it is the convoluted mass that lies superior to all other parts of the brain. It is the main site of integration of sensory & motor impulses.
- R cerebrum: Lt. = brain, adj.- cerebral.
- S cerumen: Lt. cera = wax.
- T cervical: adj. Lt. cervix = neck, pertaining to the neck.
- U **Cervix** (SER-viks) the narrow, constricted, fibrous part of the uterus that is b/n the vagina & the body of the uterus.
- V cervix: Lt. = neck, adj.- cervical.
- W **chancr- canerous, abnormal growth, rotting (kankr-)**  
**cheil- lip (cheel-)**
- X chiasma: Gk. kiasma = cross. (The Gk. letter chi = c).
- Y **chiro- hand (kyro-)**  
**chol- gall, bile (kohl)**
- Z **cholang- bile vessel or passage (kohl-ange)**

**chondra- cartilage (kondra-)**

chondral: adj. Gk. chondros = cartilage.

**Chondrium** (KON-dree- um) the cartilage adj. chondria, chondral

**Chondrocyte** (KON-droh-site) a mature cartilage cell.

**Chondroitin sulfate** (kon-DROI-tin SUL-fate) a semisolid material forming part of the EC matrix in certain CT.

chorda: Lt. = cord.

**chori- protective membrane (kor-ee-)**

**Choroid** (KO-royd) part of the vascular tunic covering of the eyeball. It lines most of the internal surface of the sclera, forming the middle layer of the wall of the eye.

**Choroid plexus** (KO-royd PLEKS-sus) a mass of specialized capillaries in the ventricles of the brain, from which CSF is produced.

choroid: adj. Gk. chorion = skin and eidos = shape or form, hence, like a membrane.

**chrom- coloured (kroh-m-)**

**Chromatin** (KROH-mah-tin) the mass of genetic material in the nucleus of a cell, consisting mostly of DNA. It is only visible during interphase.

**Chromosome** (KRO-mo-som) one of the structures (46 in human cells) within the cell nucleus that contains genetic material. Chromosomes become visible during cell division.

**chron- time (kron-)****chyle- digested fats (ky-lee)**

chyle: Gk. = juice. also chyli: Gk. = juice.

**cili- eyelash (sil-ee)****cilia- hair (sil-ee-ah)**

ciliary: adj. Lt. cilia = eyelashes.

**Cilia** (SIL-ee-ah) a hairlike process associated with a cell that is a modification of the plasma membrane. Its movement generates a flow of fluid (usually mucus) in the extracellular environment. sing. = cilium.

cilium: Lt. = eyelid, hence, an eyelash; adj. - ciliary, or ciliated. pl. - cilia

**cine- movement (sin-ee)**

cingulum: Lt. girdle or belt, adj. - cingulate.

**circum- around , surrounding**

circumflex: Lt. circum = around, and flexere = to bend, hence, bend or bent around.

**cirrho- yellow, orange (si-roh)****cis-on this side (sis)**

- A cisterna: Lt. = a cistern.
- B claustrum: Lt. clausum = closed, hence a barrier.
- clavicle: diminutive of Lt. clavis = key - old Roman keys were S- shaped.
- C cleid- clavicle (klyde-)**
- D cleido: Gk., cleis = key, a combining form denoting relationship to the clavicle.
- E cleist- closed (klyst-)**
- F clinoid: adj.Gk. kline = bed, eidos = shape or form, hence, like a bed-post.
- G clist- closed**
- H clivus: Lt. = slope (c.f. declivity).
- I co- with, together (koh)**
- I coccyx: Gk. kokkyx = cuckoo, whose bill the coccyx resembles.
- J Cochlea (KOK-lee-ah) the portion of the inner ear which contains the receptors of hearing -the organ of Corti.**
- K cochlea: Lt. = snail, hence the spiral cochlea, adj.- cochlear.
- L coeliac: adj.Gk. koilia = belly. (AS celiac)
- M coen- general , common**
- col-with, together**
- N coli: Lt. = of the colon.
- O Collagen (KOL-a-jen) a protein that is an abundant component of CT.**
- O collateral: adj.Lt. con = together, and latus = side, hence, alongside.
- P colli: genitive (possessive case) of collum, Lt. = neck
- Q colliculus: diminutive of Lt. collis = hill.
- collum: Lt. = neck (cf. collar).
- R Colon (KOH-lun) the large intestine, containing the ascending, transverse, descending & sigmoid sections.**
- S colon: Gk. kolon = large intestine.
- T colp- vaginal (kohlp)**
- U columna: Lt. = column, or pillar.
- V com- together, with**
- V comitans: adj.Lt. = accompanying.
- W commissure: Lt. con = together, and missum = sent, fibres which cross b/n symmetrical parts.
- X communicans: adj.Lt. = communicating.
- Y Compact bone** one of 2 types of bone tissue, it is characterized by a dense EC matrix filled with mineral salts and collagen arranged in lamellae that surround a central osteonic (Haversian) canal. (=dense bone).
- Z

**con- together, with (Kon)**

concha: Lt. = shell. pl. conchae pertaining to shell shapes as in the ear and nose

**Condyle** (KON-dile) a rounded enlargement or process possessing an articular surface

condyle: Gk. kondylos = knuckle.

**Cone cell** a photoreceptor in the retina of the eye that is involved in colour vision and high visual acuity.

conjunctiva: Lt. con = with, and junctus = joined (cf. junction),

**Connective tissue** (kon-EK-tiv Tishh-ew) (CT) one of the 4 basic types of tissue in the body. It is characterized by an abundance of EC material with relatively few cells, and functions in the support and binding of body structures.

conoid: Gk. konoeides = resembling a cone, cone shape

constrictor: Lt. con = together, and strictum = drawn tight, hence, producing narrowing.

contour: Gk. tornos = lathe, hence a line which turns - an outline.

**contra- opposite against**

contralateral: Lt. contra = against, latus = side, the opposite side ( $\neq$  ipsilateral)

conus: Lt. = cone, conus medullaris - the lower end of the spinal cord.

coracoid: adj. = like a crow's beak.

**Cornea** (KOR-nee-ah) the transparent, anterior portion of the fibrous tunic covering the eye, derived from 2 germinal layers..

cornea: Lt. cornu = horn, hence, the dense transparent tissue forming the front of the eyeball.

corniculate: Lt. = shaped like a small horn.

cornu: Lt. = horn.

corona: Lt. = crown. adj.- coronary or coronal; hence a coronal plane is parallel to the main arch of a crown which passes from ear to ear (c.f. coronal suture).

**Corona radiata** (koh-RO-nah ra-dee-AR-tah) several layers of follicle cells that form a protective mantle around the secondary oocyte.

**Coronal** (kor-RO-nal) **plane** a plane that extends vertically to divide the body into anterior & posterior portions. also = the frontal plane.

coronary: adj. Lt. = crown, hence, encircling like a crown.

coronoid: adj. shaped like a crown.

**corp- body (korp)**

corpus: Lt. = body, pl.- corpora. pertaining to the body or the main part of the organ

- A Corpus luteum** (KOR-puhs LOO-tee-uhm) a structure w/n the ovary that forms from a ruptured Graafian follicle and functions as an endocrine gland by secreting female hormones.
- C Corpuscle** (KOR-puhs-ehl) used to describe a small body contained w/n a sac, as in red corpuscle (RBC) small package of haemoglobin (see also renal corpuscle)
- corpuscle: Lt. = a little body.  
corrugator: Lt. con = together, and ruga = wrinkle, hence a muscle that produces wrinkles.
- Cortex** (KOR-tehks) the outer portion of an organ. ( $\neq$  medulla)  
cortex: Lt. = bark, adj.cortical.
- cost- rib (kost)**  
costa: Lt. = rib. adj.- costal.  
coxa: Lt. = hip, hence os coxae = the hip bone.
- Cranium** (KRAYN-ee-um) consists of all the bones of the skull with the exception of the mandible  
cranium: Gk. kranion = skull. adj. cranium  
cremaster: Gk. = suspender, hence the muscle which suspends the testis.
- Crenation** (kre-NAY-shun) the shrinkage of a cell caused by contact with an hypotonic solution.
- Crest** (KR-est) a narrow ridge  
cribriform: adj.Lt. cribrum = sieve, hence, sieve-like.  
cricoid: adj.ring-like, circular.  
crista: Lt. = crest, crista galli = the (median) crest of a cock.
- Cristae** sensory organs of dynamic equilibrium, which are located w/n the ampullae of the inner ear.
- Crown** the part of a tooth that is exposed, and covered with enamel.  
cruciate: adj.Lt. crux = cross, hence, crossed like the letter X.
- crur- leg (kroo-r)**  
crus: Lt. = leg, plural - crura.
- cryo- cold freezing**  
**crypt- hidden, covered occult**  
cubital: adj.Lt. cubitus = elbow.  
cuboid: adj.Gk. kuboides = cube-shaped.  
culmen: Lt. = summit (c.f. culminate).  
cuneate: adj.Lt. = a wedge.  
cuneiform: adj.Lt. cuneus = wedge, hence wedge-shaped.  
cuneus: Lt. = a wedge, adj.- cuneate.
- Cupula** a gelatinous mass located w/n the ampullae of the inner ear.

It shifts in response to changes in the position of the head. This shift generates an impulse, which is interpreted in the brain as dynamic equilibrium

cupola: Lt. = little dome. / cupula: Lt. = little dome. (AS cupula )

cusps: Lt. cuspis = a pointed elevation.

### cutis- skin (kew-tis)

cutaneous: adj.Lt. cutis = skin.

**Cutaneous** (kew-TAY-nee-us) **membrane** one of the 3 types of epithelial membranes found in the body, it is also known as the skin.

**Cuticle** (cew-Tic-le) a narrow region of stratum corneum at the proximal end of a nail (=eponychium)

### cymbo- boat shaped (sim-boh)

### cyrt- bent, curved

### cyst- sac bladder (sist-)

cyst: Gk. kystis = bladder, adj.- cystic.

### cyt-cell (site-

**Cytokinesis** (SI-to-ky-nee-sis) the division of the cytoplasm as a part of the process in mitosis resulting in 2 equal daughter cells.

**Cytoplasm** (SI-to-plazm) the material of a cell located w/n the plasma membrane & outside the nuclear membrane, containing the cellular organelles.

**Cytosol** (SI-toh-sol) the thickened fluid of the cytoplasm. It lies outside the cellular organelle membranes.

**Cytoskeleton** (si'-to-SKEHL-eh-ton) the complex supportive network of microtubules & microfilaments in the cytoplasm.



# D

**dactyl- digit, finger, toe (dak-til)**

dartos: Gk. = flayed or skinned.

**de- remove, undoing, reversal, depriving, freeing from**  
**dec- ten, tenth (dess)**

declive: Lt. declivitas = slope (cf. clivus).

decussation: Lt. decussatus = crossed like the letter X.

**Deep** a directional term meaning away from the surface of the body.  
(≠ superficial)

**Deep fascia** (FASH-ee-ah) a sheet of CT covering the external surface of a muscle (also = the epimysium).

deferens: adj.Lt. = carrying down.

deglutition: Lt. deglutire = to swallow, hence the act of swallowing.

dehiscence: Lt. de = away, hiscere = to gape, hence, a separation, a splitting away (as in wounds).

**deka- multiple of ten**

deltoid: adj. Gk. delta (D), the capital letter has a triangular shape (c.f. the delta of the Nile)

**dem- people, population (dem)**

**demi- half (dem-ee)**

**Dendrite** (DEN-dryt) a cytoplasmic extension from the cell body of a neuron which carries a nerve impulse towards the cell body.

dendrite: or dendron, Gk. = a tree, hence like the branches of a tree.

dens: Lt. = tooth (c.f. dentist), adj.- dental.

**Dense irregular connective tissue** a CT that contains an EC matrix densely populated with collagen fibers, which extend in irregular directions - found in the dermis of skin.

**Dense regular connective tissue** a CT that contains a matrix densely populated with collagen fibers, which extend in parallel directions. It is the main component of tendons and ligaments.

**dent- teeth**

dentate: Lt. dens = tooth, hence, having a toothed margin.

denticulate: Lt. dens = tooth, hence, having small tooth-like projections.

**Dentin** (DEN-teen) the bonelike material forming the bulk of a tooth.

dentine: from Lt. dens = tooth; the substance of the tooth surrounding the pulp.

**Deoxyribonucleic acid** (dee-ohk'-see-ry-bo-nyoo-KLAY-ik AH-sihd) **(DNA)** a nucleic acid in the shape of a double helix that contains the genetic information necessary for protein synthesis.

depress: Lt. de = prefix implying descent, and pressum = pressed, hence to press down

depression = downward movement or a concavity on a surface.

**Depressor** (DEE-press-ohr) muscle which pushes down ( $\neq$  levator)

dermatome: Gk. derma = skin, tome = a cutting or division, a segment of skin supplied by a single spinal ganglion.

### derm- skin

**Dermis** (DER-mis) the layer of the skin lying deep to the epidermis and composed of dense irregular CT.

dermis: Gk. = skin, adj.- dermal.

**Descending colon** (dee-SEN-ding KO-lun) the segment of the large intestine b/n the transverse colon & the sigmoid colon. (= Left colon).

detrusor: Lt. detrusio = thrust away.

### desmo- ligament

### deuter- secondary, second

### di- two, twice, double, reversal, separation, apart from

### dia- through across, between, apart, complete

diaphragm: Gk. dia = across, and phragma = wall, hence, a partition, adj.-diaphragmatic (see phrenic).

**Diaphysis** (di-AH-fih-sihs) the shaft of a long bone.

diaphysis: Gk. dia = apart, and physis = growth, hence the body of a long bone b/n the growing regions near the ends.

diastole: Gk. dia = apart, and stellein = sending, hence sending the walls of the heart apart, i.e. relaxation or dilatation. adj.- diastolic.

diencephalon: Gk. dia = between, & enkephalos = brain, in general the structures surrounding the 3rd ventricle.

adj.- diencephalic.

digastric: adj.Gk. dia = double, & gaster = belly, hence, 2-bellied (as in muscles).

digit: Lt. digitus = a finger or toe, usually excepting the pollex (thumb) or hallux (big toe), adj.- digital.

### diplo- double, twin

diplopia: Gk. diploos = double, and opsis = vision, hence double vision.

diploë: Gk. = fold, the cancellous bone b/n the inner and outer tables of the skull, adj.- diploic.



- A dis-apart from, two, twice, double , reversal, separation, difficult, wrong**  
B      discus: Lt. = disc.
- C Dissection** (DYE-sek-shon) to cut up to carve in a systematic way  
dissection: Lt. disseccare = to cut up, from dis = apart, sectum = cut (c.f. anatomy).
- D Distal** (DIS-tahl) away from the middle of the body or the axis or core of the body proximal
- E distal:** adj. Lt. di = apart, and stans = standing, hence, standing apart, implying farther from a given point.
- G Distal convoluted tubule** a segment of the renal tubule (of the kidney nephron) that extends from the loop of Henle to the collecting duct. Its pathway is very twisted.  
I      diverticulum: Lt. = by-road, hence a blind tubular process or sac.
- J Dorsal** (DOR-sal) a directional term indicating toward the back side, or posterior.  
K      dorsal: adj.Lt. dorsum = back.
- L Dorsal root** the sensory branch of a spinal nerve which connects with the SC.  
M      dorsum: Lt. = back.  
N      ductus: Lt. = duct.
- O Ductus deferens** (DUK-tuhs DEF-er-ehnz) the tube that conducts sperm from the epididymis in the testes to the ejaculatory duct. (also = vas deferens, and seminal duct).
- P duo- two**
- Q Duodenum** (dew-OH-den-uhm) the first segment of the small intestine extending from the pyloric valve to the jejunum.  
R      duodenum: Lt. duodenarius = twelve, because it is 12 fingerbreadths long.
- S dura:** adj.Lt. = hard (cf. durable); dura mater, the tough covering membrane of the CNS.
- T dy- two**
- U dynam- power energy (dye-nam)**
- V Dynamic equilibrium** the sensation of rapid movements, mostly of the head.
- W dysphagia:** Gk. dys = difficult, and phagein = to eat, hence, difficulty in swallowing.
- X dys- difficult painful abnormal**
- Y**
- Z**

# E

**e- outside, external, out, protrude, over, away, less**

**ec- outside, out, to protrude over, away, less / house**

**Eccrine** (EHK-rihn) a type of sweat gland that functions in the maintenance of body temperature.

**ecto- outer, out of place**

**echin- spine or thornlike processes (ee-kine)**

**Ectoderm** (EHK-toh-derm) one of 3 primary germ layers in the developing embryo. It gives rise to the NS & to the epidermis and its derivatives.

ectoderm: Gk. ektos = outside, and derm = skin, hence, the outermost germ layer of the embryo.

**- ectomy to cut out, excise surgically**

ectopic: Gk. ek = out, and topos = place, hence out of place.  
edge: border or margin of a surface.

**ef- outside out to protrude over away less**

efferent: adj. Lt. ex = out, and ferens = carrying, hence, conducting from.

**Efferent arteriole** (EHF-er-ehnt ar-TEER-ee-ole) an arteriole that transports blood away from the glomerulus of a nephron (in the kidney).

**Efferent ductules** (DUK-tew-lz) small coiled tubes that transport sperm from the rete testis to the epididymis.

ejaculatory: Lt. ex = out, and jacere = to throw, hence throwing out.

**Elastic cartilage** a type of cartilage (CT) that contains large numbers of elastic fibers in a more opaque matrix- present in the external ear, & parts of the larynx.

**Elasticity** (ee-lahs-TIH-sih-tee) the physiological property of tissue to return to its original shape after extension or contraction.

elbow: the junction between arm and forearm.

elevate: Lt. elevatus = raised up, hence, to raise up, and elevation = a raised part ≠ depress.

**em- within inside into in on**

emboliformis: adj. Gk. embolus = wedge or blocking matter.

**Embryo** (EHM-bree-oh) in the human - the developing organism during the first 8 weeks of life after fertilization.

embryo: Gk. en = within, and bryein = to swell or grow, the early stage of intrauterine development.

A **emet- vomiting**

B eminence: Lt. eminens = projecting, hence, a projection (usually smooth).

C emissary: adj. Lt. e = out, and emissum = sent out; emissary vein, one connecting intra- with extra-cranial venous channels.

D **en- within inside in on**

E **Enamel** (ee-NAM-ehl) the hardened outer covering on the crown of a tooth.

F encephalon: Gk. en = within, and kephalos = head, hence, the brain.

G **endo- within inside into on**

H endocardium: Gk. endo = within, and kardia = heart, the endothelial lining of the chambers of the heart.

I endocranium: Gk. endo = within, and kranion = skull, the outer endostial layer of the dura mater.

J **Endocardium** (ehn-doh-CARD-ih-um) the innermost layer of cells in the heart chambers (see endothelium)

L **Endochondral ossification** (ehn-do-KOHN-dral OS'-if-iKA-shun) where bone tissue develops by replacing hyaline cartilage.

M endocranium : Gk. = within, the skull adj. endocranial

N endocrine: Gk. endo = within, : krinein = to separate, organs that ductlessly secrete products into the BS.

O **Endocrine gland** (EHN-do-krihn gland) one of two main categories of glands, here the cellular products are secreted into the extracellular space and transported by the BS. (also = ductless glands).

Q **Endocytosis** (ehn'-do-sih-TO-sihs) the active process of bulk transport of material into a cell. It includes phagocytosis and pinocytosis.

R **Endoderm** (EN-do-derm) one of the 3 primary germ layers in an embryo, it begins as the inner layer, later forms the organs of the alimentary canal (GIT) & the respiratory tract.

T endoderm: Gk. endo = within, and derm = skin, hence, the germ layer of the embryo that gives rise to the organs of the GIT, respiratory system and the lining of the BVs.

V endolymph: Gk. endo = within, and Lt. lymph = clear water, hence the fluid within the membranous labyrinth of the internal ear.

W **Endometrium** (EN-do MEE-tree-uhm) the innermost layer of the uterine wall. The endometrium undergoes changes in response to female hormones, resulting in a 28-day cycle involving menstruation during which much of the endometrium is sloughed off to be rebuilt again.

endometrium: Gk. endo = within, and metra = uterus, hence the mucosal lining of the uterine cavity.

**Endomysium** (ehn'-do-MY-see-uhm) the deepest layer of CT associated with muscle. It surrounds individual muscle fibers.

**Endoneurium** (ehn'-do-NEW-ree-uhm) the deepest layer of CT associated with a nerve. It surrounds individual nerve fibers (myelinated axons of neurons).

**Endoplasmic reticulum** (ehn'-do-PLAZ-mik reh-TIHK-yew-lum) (ER) a cytoplasmic organelle that consists of a series of tubules with a hollow center. It functions in the transport of cellular products (smooth ER), and as a site for protein synthesis (if ribosomes are attached, called rough ER) (see also Sarcoplasmic reticulum specially adapted for muscle fibres).

**Endosteum** (ehn-DOS-tee-uhm) a membrane lining the medullary cavity w/n a bone & containing osteoblasts and osteoclasts.

**Endothelium** (ehn'-do-THEE-lee-uhm) a layer of simple squamous epithelium lining the inside of BVs & the heart chambers (see endocardium).

endothelium: Gk. endo = within, & thele = the nipple; squamous epithelium lining the heart and BVs.

**ent- within, inner**

**enter- to do with the gut, intestines**

**Eosinophil** (ee'-oh-SIHN-oh-fihl) a type of granulated WBC characterized by a cytoplasm which absorbs the eosin stain.

ependyma: Gk. = an upper garment. It may refer to a vest or singlet, ie. an under-garment, hence, the lining membrane of the ventricles of the brain and central canal of the SC.

**ep- upon, in addition to, beside among, on the outside, over**

**Ependymal** (eh-PEN-di-mal) **cells** a type of neuroglial cells in the brain that line the ventricles. (also = ependymocytes).

**epi-upon, in addition to, beside, among, on the outside, over**

epicanthus: Gk. epi = upon, and kanthos = corner, hence, the fold of skin over the inner angle of the upper eyelid, a normal characteristic in certain races, & a congenital anomaly in others.

**Epicardium** (epi-KAR-dee-um) the thin outer layer of the heart wall. (also = visceral pericardium)

epicardium: Gk. epi = upon, and kardia = heart, visceral layer of serous pericardium covering the heart.

epicondyle: Gk. epi = upon, and kondylos = knuckle, a prominence on a condyle of the humerus/femur.

- A epicranial: adj.Gk. epi = upon, & kranion = skull, epicranial  
B aponeurosis (galea) joining frontalis to occipitalis muscles.
- C **Epidermis** (epi-DERM-ihs) the superficial layer of skin composed of stratified squamous epithelium.  
D epidermis: Gk. epi = upon, and derm = skin, hence, the most external layer of the skin.
- E **Epididymis** (epi-DID-imus) an organ in the male reproductive system that consists of a coiled tube located within the scrotum.  
F epididymis: Gk. epi = upon, and didymos = testis, hence, the  
G organ perched posterosuperior to the testis.  
H epidural: adj.Gk. epi = upon, Lt. dura = tough, hence, external to  
I dura mater.  
J epigastrium: Gk. epi = upon, and gaster = belly, hence, the upper  
K median zone of the abdomen.
- L **Epiglottis** (epi-GLOHT-ihs) a part of the larynx that consists of a leaf-shaped piece of hyaline cartilage which forms a movable lid over the opening into the trachea, called the glottis.  
M epiglottis: Gk. epi = upon, and glottis = larynx, hence the  
N uppermost part of the larynx.
- O **Epimysium** (epi'-MI-see-uhm) the outer layer of CT associated with muscle, it surrounds the whole muscle. (see deep fascia).  
P epimysium: Gk. epi = upon, and mys = muscle; the CT  
Q surrounding an entire muscle.
- R **Epineurium** (epi-NEW-ree-uhm) the outermost layer of CT associated with a nerve. It surrounds the whole nerve.
- S **Epiphyseal** (epi-FIS-EE-al) **line** a line of calcified bone visible in a section through bone that is the remnant of the epiphyseal plate.
- T **Epiphyseal plate** a region of cartilage b/n the epiphysis & diaphysis producing growth in the length of a bone.
- U **Epiphysis** (ep-IF-ih-sihs) the end of a long bone that contains spongy bone tissue, surrounded by compact bone  
V epiphysis: Gk. epi = upon, and physis = growth, the end of a long  
W bone beyond the cartilaginous growth disc, adj.- epiphysal.
- X epiploic: adj.Gk. epiploon = a net, which the greater omentum  
Y resembles (+ entrapped fat globules).
- Z **episi- to do with the vulva (ep-ee-zee)**
- Epithelial** (epi-THÉE-lee-al) **tissue** one of 3 primary tissue types, it is characterized by a close arrangement of cells with little intercellular material. (also = epithelium).

epithelium: Gk. epi = upon, & thele = the nipple; cell layer lining the body's internal & external surfaces. epithelium of the gastrointestinal and respiratory tracts.

**Eponychium** (ehp'-o-NIHK-ee-uhm) a narrow region of stratum corneum at the proximal end of a nail. (= cuticle).

**equi- equal**

erector: Lt. erectus = straight or upright.

**erg- work**

**-ergy action**

erigentes: pl., Lt. erigere = to erect.

**erythr- red**

**Erythrocyte** (eh-RITH-ro-site) a synonym for red blood cell.

**eso- within**

**Esophagus** (eh-SOHF-ah-guhs) a tubular segment of the alimentary canal b/n the pharynx & the stomach. (AS Oesophagus)

ethmoid: adj. Gk. ethmos = sieve, and eidos = shape or form, hence, like a sieve; an unpaired skull bone.

**eu- good, normal, well, easily**

**eury- broad, wide**

eversion: Lt. e = out, and versum = turned, hence turned outwards.

**ex- to protrude, outside, out, over, away, less**

**Excretion** (ehk-SKREE-shuhn) the process by which metabolic waste materials are removed from a cell, a tissue, or an entire body.

**exo- outside, outer layer, out of**

**Exocrine** (EHK-so-krihn) gland, one of two main categories of glands, here the cellular products are released into ducts then transported to a body surface or into a body cavity.

**Exocytosis** (ehk'-so-sih-TO-sihs) the active cellular process by which materials are transported out of a cell and into the extracellular environment.

exophthalmos: Gk. exo = out, and ophthalmos = eye, hence, prominent eyeball.

extend: Lt. extendo = extend/stretch out, extension = extended or straightened; ≠ flexed or bent.

external: adj. Lt. externus = outward, hence, further from the inside.

**External auditory canal** the epidermal-lined tube of the external ear, extending from the auricle to the tympanic membrane. It passes through the hole in the temporal bone called the external auditory meatus.

**A External ear** the outer part of the ear, which consists of the appendage known as the auricle, the external auditory canal, and the tympanic membrane (see Pinna).

**C extra- outside of out over beyond, in addition to, Extracellular environment** (EKS-trah-CEHL-yew-lar en-VI-ROH-mehnt) the body space outside the plasma membrane of cells.

**E Extracellular fluid (ECF)** the fluid outside the plasma membrane of cells, including interstitial fluid and blood plasma.

**F** extraperitoneal: adj. Lt. extra = outside, Gk. peri = around and teinein = stretched, outside the serous membrane stretched around the inside of the abdominal wall and around the viscera.

**I** extrapyramidal: Lt. extra = outside, and pyramidal (q.v.), hence descending nerve tracts that do not traverse the pyramids of the medulla.

**K** extrinsic: Lt. extrinsecus = from without, hence (usually) a muscle (usually) originating outside the part on which it acts.



## F

fabella: diminutive of Lt. faba = a bean, a sesamoid bone found in the lateral head of gastrocnemius.

**Facet** (FAS-set) a small joint surface or smooth boney surface

facet: Lt. facies = face, a small smooth bony surface,  $\pm$  coated with articular/joint cartilage, the site of a tendinous attachment (c.f. a facet on a diamond).

**faci- to do with the face (fasi)**

facilitate: Lt. facilis = easy, hence, to make easy.

falciform: adj. Lt. falx = a sickle, and forma = form, hence, shaped like a sickle.

**Falx** (FALKs) as in sickle-shaped or curved used in the brain mainly, adj. falciform (FALS-ee-form)

falx: Lt. = sickle, hence, the sickle-shaped falx cerebri and falx cerebelli, adj. - falciform.

**fasci- band, conncteion (fashi-)**

**Fascia** (FASH-ee-ah) a sheet or band of dense CT that structurally supports organs and tissues. Deep fascia surrounds muscle tightly, and superficial fascia separates the skin and muscle layers often loose, variable .

fascia: Lt. = band or bandage, hence the fibrous wrapping of muscles - deep fascia, or the subcutaneous layer of fatty CT - superficial fascia, adj. fascial.

**Fascicle** (FAS-ih-kul) A bundle of skeletal muscle fibers (cells) that forms a part of a muscle.

fasciculus: diminutive of Lt. fascis = bundle, hence, a bundle of nerve or muscle fibres.

**Fat** a lipid compound formed from one molecule of glycerol and three molecules of fatty acids. It is the body's most concentrated form of energy, and also serves to insulate from external temperature changes. It is stored w/n cells comprising adipose tissue.

fauces: Lt. = throat, adj. - faucial.

**febri- fever**

femur: Lt. = thigh, adj. - femoral. pl. femora

fenestra: Lt. = window.

**Fetus** (FEE-tuhs) the early developmental stage from 8 weeks after fertilization to birth. (AS Foetus)

fetus: the developing mammal in utero; in Man, after the 2nd month in utero, adj. - foetal or fetal.



A fibre: Lt. fibra = a fibre, adj. Lt. fibrosus = fibrous.

B fibril: diminutive of Lt. fibra = a fibre.

**Fibrin** (FI-brihn) an insoluble protein in the blood, formed from  
C fibrinogen & required for blood clotting.

**Fibrinogen** (fi-BRIHN-o-jehn) a large plasma protein, the precursor of  
D fibrin. It is converted to fibrin by thrombin.

**Fibroblast** (FI-bro-blahst) a large cell in CT that manufactures much  
E of the extracellular material.

**Fibrocartilage** a type of cartilage (CT), which is distinguished from  
F other cartilages by the small size and numbers of chondrocytes and  
G lacunae, differential staining, and close resemblance to dense regular  
H CT. It is found in the intervertebral discs particularly the outer ring.

**Fibrous tunic** the outer wall of the eyeball that is composed of dense  
I CT, it contains the sclera & the cornea.

J fibula: Lt. = brooch, which the tibia and fibula resemble, the fibula  
K is the movable pin

**fila- threadlike thread**

L filament: Lt. filamentum = a delicate fibre, adj.- filamentous.

M filum: Lt. = a thread. Filum terminale - a thread of pia continuous  
N with the lower end of the SC.

fimbria: Lt. = a fringe, fimbria hippocampi, a scalloped band of  
O fibres alongside the hippocampus.

**Fissure** (FISH-er) a narrow gap or slit or furrow

P fissure: Lt. = a cleft.

fixator: Lt. fixus = fixed, hence, a muscle which fixes a part.

Q flaccid: adj.Lt. flaccidus = weak or slack.

R flavum: adj.Lt. flavus = yellow.

S flex: Lt. flexum = bent, flexor, a muscle which bends a part of the  
T body, & flexion = the act of flexing insert the unequals sign  
U extension.

**Flagellum** (flaw-JEHL-uhm) a single, long extension of a cell  
U composed of protein filaments to provide mobility. In human cells, it is  
V found only in sperm cells.

**flav- yellow**

W flexure: Lt. flexura = a bending.

X flocculus: diminutive of Lt. floccus, a tuft. resembling a picture of  
Y a little cloud, with a woolly top and a flat base, as in flocculus  
Z cerebelli.

**Foetus** (FEE-tuhs) the early developmental stage from 8 weeks after  
fertilization to birth. (AS Fetus)

foetus: the developing mammal in utero; in man, after the 2nd month in utero, adj.- foetal AS fetal.

folia: plural of Lt. folium = leaf.

follicle: Lt. folliculus = a little bag, adj.- follicular.

fontanelle: French diminutive of Lt. fons = fountain, associated with the palpable pulsation of the brain in the anterior fontanelle of an infant.

**Foramen** (FOR-ay-men) a natural hole or passage in a bone usually for the transmission of BVs or Ns

foramen: Lt. = hole. pl. foramina

forceps: Lt. = tongs.

### fore- front or before

forearm: the upper limb between the elbow and the wrist.

fornix: Lt. = arch (hence fornication, because the Roman prostitutes plied their profession beneath the arches of the bridges over the river Tiber).

**Fossa** (FOS-ah) a pit, depression or concavity on a bone or formed by several bones

fossa: Lt. = a ditch or trench, hence a concavity in bone, or an organ, or on a lining surface.

fovea: Lt. = a pit (usually smaller than a fossa).

**Fovea centralis** (FO-vee-aw cehn-TRAL-ihs) the region of the retina consisting of cone cells only (no rod cells), it is the area of highest visual acuity (sharpness of vision) a small depression on the retina.

foveola: diminutive of fovea.

### fract- break

frenulum: diminutive of frenum.

frenum: Lt. = bridle or curb.

frontal: adj. Lt. frontis = of the forehead, or coronal.

**Frontal plane** a plane that extends in a verticle direction dividing the human body into front (anterior) and back (posterior) portions. (also = the coronal plane).

**Fundus** a large, expanded compartment w/n the stomach serving as a temporary storage area for ingested food material.

fundus: Lt. = bottom or base. (note that the fundus of the stomach & uterus are at the top, and the fundus of the eye & of the bladder are posterior!). adj.fundiform

funiculus: diminutive of Lt. funis = cord (used usually for bundles of nerve fibres).

### fus- spindle (fewze-)

fusiform: adj.Lt. fusus = spindle, hence, spindle-shaped.

# G

**Gallbladder** (GAWL-blahd-er) a small saclike organ located beneath the liver that stores bile.

galli: genitive (possessive case) of Lt. = cock, hence, crista galli, the cock's comb.

gallus: Lt. = cock, hence, crista galli, the cock's comb.

**Gamete** (ga-MEET) a sex cell. It may be male (sperm cell) or female (oocyte).

gamma: the 3rd letter of the Gk. alphabet, used in sequence - alpha, beta, gamma, delta, etc.

**Ganglion** (GANG-lee-ohn) a cluster of neuron cell bodies located outside the CNS.

ganglion: Gk. = swelling, referring to a peripheral collection of nerve cells, adj. - ganglionic.

**Gastric** (GAHS-trihk) **gland** any one of several types of glands in the stomach mucosa that contributes to the gastric juice.

gastric: Gk. gaster = belly or stomach adj. gastro.

**Gastro** (GAS-troh) pertaining to the stomach

**Gastrocnemius** (GAS-troc-neem-uhs) the muscle belly in the calf

gastrocnemius: Gk. gaster = belly, and kneme = leg, hence, the bulging muscle of the calf. gelatus = frozen.

gelatin: Lt. gelatina = congeal material derived from partial hydrolysis of skin collagen.

gemellus: Lt. diminutive of geminus = twin.

genial: adj. Gk. geneion = chin.

geniculate: Lt. geniculare = to flex the knee, hence, a bent knee.

geniculum: Lt. geniculare = (jen-ew) the knee.

genital: adj. Lt. genitalis = reproductive, hence, genitalia, the sexual organs.

genu: Lt. = knee.

**Germinal** (JER-mih-nal) **epithelium** a layer of epithelial cells covering the ovaries.

**Gestation** (jehs-TA-shuhn) the period of development prior to birth.

gestation: Gk. ges = carry

**giganto- huge**

gingiva: Lt. = gum (of tooth).

girdle: a ring of bones which may be complete or incomplete

hence the pelvic girdle is complete and the pectoral girdle is not

glabella: diminutive of Lt. glaber = bald, i.e. smooth, bony prominence between the eyebrows.

gladiolus: diminutive of L. gladius = a sword, i.e. a small sword, applied to the body of the sternum.

**Gland** a specialization of epithelial tissue to secrete substances. It may consist of a single cell or a multicellular arrangement.

gland: Lt. glans = an acorn, adj.- glandular; a secreting organ.

glandula: diminutive of Lt. glans = acorn, hence a little gland.

**Glandular epithelium** epithelial tissue whose primary function is secretion; it is the prominent tissue forming endocrine & exocrine glands.

glans: Lt. = acorn. glans penis at the end of the penis - looks like an acorn

glenoid: adj.Gk. glene = socket, and eidos = shape or form.

glia: Gk. = glue, hence, an adhesive CT.

globus: Lt. = a globe.

**Glomerulus** (glo-MEHR-oo-luhs) one of many specialized capillary networks located in the kidney cortex, each of which is encapsulated by a Bowman's capsule. It is part of the kidney nephron, & is the site of kidney filtration.

glomerulus: Lt. glomerare = to roll up, from glomus = a ball of thread (c.f. conglomeration). or knot

glossal: adj.Gk. glossa = tongue.

glottic: adj.Gk. = larynx.

glottis: Gk. = larynx, hence, the boundaries of rima glottidis.

**Gluteal** (GLOO-tee-al ) to do with the rump buttock behind adj. gluteus (GLOO-tee-us)

gluteal: adj.Gk. gloutos = rump or buttock.

gluteus: Gk. gluteos = rump or buttock. 1 of 3 muscles of the buttock, adj. - gluteal.

**gnath- jaw (na-th)**

**Goblet cell** a unicellular gland often in the shape of a goblet that secretes mucus. (also = a mucus cell).

**Golgi apparatus** (GOL-jee ahp'-ah-RAHT-uhs) a cellular organelle characterized by a series of flattened, hollow cisternae. It serves as a site of anabolic activities.

**Gonad** (GO-nahd) an organ that produces gametes and sex H. In the male it is the testes, and in the female it is the ovaries.

**gon- sexual**

**goni- corner**

A **gony- knee**

B gonad: Gk. = reproduction, hence a gland producing gametes -  
ovary or testis, adj. - gonadal.

C **Graafian follicle:** a mature ovarian follicle that contains a single  
D oocyte. The Graafian follicle secretes the female hormone estrogen.  
E Following ovulation, it changes form to become the corpus luteum,  
which produces progesterone.

gracile: adj. Lt. gracilis = slender.

F **granul- grain (gran-ewl)**

G granulation: diminutive of Lt. granum = a grain, hence a little grain  
gravid: adj. Lt. gravida = pregnant.

H **gravis- heavy**

I **Grey matter** Nerve tissue in the brain and SC that contains neuron  
J cell bodies, dendrites, & nonmyelinated axons, and therefore appears  
grey or non-white in colour.

griseum: adj. Lt. griseus = bluish or pearly grey.

K gubernaculum: Lt. something which governs or directs, like a  
L rudder (c.f. gubernatorial).

**Gustation** (guhs-TA-shuhn) the sense of taste.

M gustatory: adj. Lt. gustatio = taste, hence, pertaining to the sense  
N of taste.

O **Gustatory organ:** a special sensory organ that contains  
chemoreceptors providing the sense of taste, or gustation. (also =  
P taste buds) They are mainly located on the tongue & embedded w/n  
papillae.

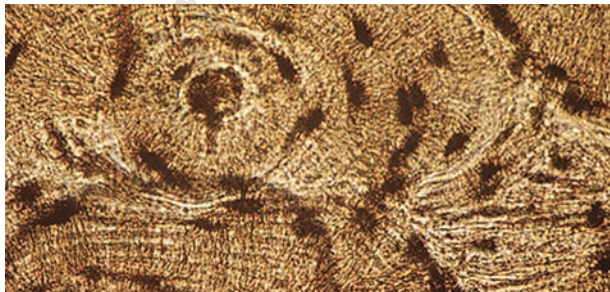
Q **Gyrus** (g-eye-rus) the elevation of neural tissue in the brain, opposite  
of sulcus the depression in the brain b/n each gyri.

R gyrus: Gk. gyros = circle, hence a coil of brain cortex. pl. gyri

S **gymno- nakedness**

**gyn- female (g-eye-n)**

Compact bone



# H

habenula: diminutive of Lt. habena = rein.

**Haeme** = blood (AS Heme)

**Haematocrit** (hee-MAT-o-krit) the percentage of RBCs in a sample of blood, which is determined by centrifuging the sample and measuring the RBC volume relative to other blood components.

**Haematopoiesis** (heem'-ah-to-poy-EE-sihs) The production of blood cells in the red bone marrow. (= haemopoiesis. AS hematopoiesis)

**Haemoglobin** (HEE-mo-glo-bihn) a complex protein in RBCs involved in the transport of oxygen & carbon dioxide. (AS hemoglobin)

**Haemolysis** (hee-MOL-ih-sihs) the bursting of a RBC resulting from disruption of the plasma membrane by toxins, freezing or thawing, or exposure to a hypotonic solution. (AS hemolysis)

**Haemostasis** (hee'-mo-STA-sihs) the stoppage of bleeding.

haemorrhoid: Gk. haema = blood, and rheo = to flow, hence likely to bleed, hence haemorrhoids are the extrusion of gut BVs through the anus. These have little or no muscle and so bleeding can be profuse.

**Hair** a threadlike outgrowth of the skin that is composed of columns of keratinized cells.

**Hair follicle** a cluster of epithelial tissue surrounding the root of a hair where the hair originates.

**hallux- big toe (hal-uhcs)**

hallux: Lt. hallex = great toe (hallucis = of the great toe).

hamate: adj. Lt. hamus = a hook, hence, hooked.

hamstrings: the tendons of the muscles of the ham - ie. of the back of the thigh - felt behind the knee when the leg is flexed against resistance (semimembranosus, semitendinosus and biceps femoris).

hamulus: diminutive of Lt. hamus = hook.

**hapl- single**

haustra: Lt. = sacculles.

**Haversian system** (see osteon) smallest functioning unit of bone.

**Heart** the hollow muscular organ within the thoracic cavity that propels blood through the circulatory network.

**hecl- ulcer (hels)**

helicine: Gk. helix = a coil, spiral.

helix: Gk. = coil.

**hemi- half (hem-ee)**

**A** hemianopia: Gk. hemi = half, an = negative, opsis = vision, hence loss of half of the field of vision.

**B** hemianopsia: Gk. hemi = half, an = negative, opsis = vision, hence loss of half of the field of vision.

**C** hemiparesis: Gk. hemi = half, paresis = paralysis, used usually to denote weakness rather than paralysis.

**D** hemiplegia: Gk. hemi = half, plegia = stroke, hence, paralysis of one half of the body.

**E** hemisphere: Gk. hemi = half, sphaira = ball, hence, half of a sphere.

**F** hepar: Gk. = liver, adj.- hepatic.

**G** **Hepatic** (heh-PAT-ik) pertaining to the liver.

hepatic: adj. Gk. hepar = the liver.

**I** **Hepatocytes** (heh-PAT-OH-cites) Liver cells.

**J** hernia: Lt. = a protrusion, adj.- hernial.

**K** **heter- other, different, abnormal ≠ homo**

**hex- six**

**L** hiatus: Lt. = a gap (like that between some people's ears).

**hidr- sweat**

**M** **hier- to do with the sacrum**

**N** hilum: Lt. = the point of attachment of a seed, hence the part of an organ where the vessels and nerves are attached;  
adj.-hilar.

**O** hindbrain: the part of the brain below tentorium cerebelli, ie medulla oblongata + pons + cerebellum.

**P** hip: the lateral prominence of the hip bone and greater trochanter.

**Q** hippocampus: Gk. hippokampos = a sea-horse, the curled shape of the hippocampus in coronal section

**R** **hist- tissues**

**S** **Histology** (HIHS-toh-lo-jee) the microscopic study of tissues.

**T** histology Lt. = pictures, ology = the study of, hence the study of pictures

**U** **Horizontal plane** a plane that extends perpendicular to the length of the body dividing it into superior and inferior portions. (also = transverse plane).

**W** **holo- entire**

**X** **homo- same (hoh-moh)**

**Y** **homeo- same, common, like (hoh-me-oh)**

**Z** homologous: adj. Gk. homos = same, & logos = word, parts with similar morphologies but different functions.

horizontal: adj.- parallel to the horizon.

### **horm- to urge, to stimulate**

**Hormone** (HOR-mone) a substance secreted by endocrine tissue that changes the physiological activity of the target cell.

horn: a projection, often pointed.

### **humer- to do with the arm, upper arm (hew-mer)**

humerus: Lt. = the arm-bone.

humour: Lt. humor = liquid, hence the aqueous & vitreous

humour of the eyeball.

### **hyal- glass**

hyaline: adj.Gk. hyalos = glassy.

**Hyaline cartilage** (HY-al-ine) a type of CT that contains chondrocytes embedded w/n lacunae, both of which are surrounded by a dense, semitranslucent matrix of collagen fibers & glycosaminoglycans.

Hyaline cartilage is found in: tracheal and bronchial walls, the costal cartilages, the nose, the ends of all synovial joints and the larynx.

### **hydr- water**

hydrocephalus: Gk. hydor = water, koilos = head. (c.f. cephalic).

### **hygr- water**

hymen: Gk. = membrane; across the vaginal vagina.

hyoid: adj.Gk. = U-shaped.

### **hyper - excessive ≠ hypo**

hyperacusis: Gk. hyper = over, and akousis = hearing, hence excessive sensitivity to sound.

hypoglossal: adj. Gk. hypo = under, and glossa = tongue.

**Hyperplasia** (HI'-per-PLAY-zee-ah) an increased production & growth of cells beyond normal limits.

**Hypertonic** (HI'-pehr-TOHN-ihk) the state of a solution having a greater concentration of dissolved particles than the solution it is compared to (≠ hypotonic).

**Hypertrophy** (hi'-PEHR-tro-fee) the abnormal enlargement or growth of a cell, tissue, or organ.

### **hypo- deficient below under ≠ hyper**

**Hypodermis** (hi'-po-DEHRM-ihs) the area of the body b/n the dermis of the skin and skeletal muscle

hypophysis: Gk. hypo = down, physis = growth, hence, a downgrowth (from the brain). However, this is not the whole truth.

Part of this gland is an upgrowth from the pharynx, adj.-hypophyseal. (=pituitary)

**Hyposecretion** (hi'-po-see-KREE-shuhn) the diminished secretion of a product by a gland.



**Hypothalamus** (hi'-po-THAHL-aw-muhs) the small, inferior portion of the diencephalon in the brain. It functions mainly in the control of involuntary activities, including endocrine gland regulation, sleep, thirst, and hunger.

hypothalamus: Gk. hypo = under, and thalamus (q.v.), refers to part of diencephalon.

**Hypotonic** (hi'-po-TON-ik) the state of a solution having a lower concentration of dissolved particles than the solution it is compared to ( $\neq$  hypertonic).

**hyster- uterine (hyster-)**

hystero: Gk hyster to do with the uterus thought to be the seat of all female emotion, hence adj.- hysterical pertains to female emotions- over exhibitionistic emotion, noun. hysteria.



**iatr-** to treat (ee-at-rah)

**icter-** jaundice (ikter)

**ile-** pertaining to the ileum

**Ileum** (IHL-ee-uhm) the distal segment of the small intestine.

ileum: Gk. eilein = twisted. adj.- ileal.

**ili-** pertaining to the flank or the leg

ilium: Lt. the bone of the flank, adj.- iliac.

**im- in, into, on, onto, not, non**

ima: adj. Lt. = lowest, hence artery thyroidea ima lowest artery to the thyroid .

impar: Lt. = unpaired.

**in- in, into, on, onto, not, non**

**In vitro** (ihn VEE-tro) outside the body, such as in a culture bottle.

**In vivo** (ihn VEE-vo) inside the living body.

incisor: Lt. incisum = cut up.

incisura: Lt. = notch.

incus: Lt. = anvil, hence the anvil-shaped ossicle of the middle ear.

index: Lt. = a pointer, hence, the fore-finger. adj. indicis

indusium: Lt. = tunic.

**infero-** low, lower

**Inferior** (ihn-FER-ee-or) a directional term describing a location further from the head than something else.

inferior: adj.Lt. = lower down, hence, farther from the head end.

**infra-** below, beneath

infra: Lt. = below.

**Infundibulum** (ihn'-fuhn-DIB-yoo-lum) the narrow connection b/n the hypothalamus of the brain & the pituitary gland, also, the funnel-shaped distal end of the uterine tube which opens near an ovary.

infundibulum: Lt. = funnel and the fluid opening in the Left ventricle.

**inguin-** pertaining to the groin

inguinal: adj.Lt. inguen = groin.

inhibition: Lt. inhibitus = restrained, hence, reduction of the excitability of a synapse.

innervate: Lt. in = into, and nervus = nerve, hence, to supply a nerve to a part.

- A innominate: Lain in = not, and nomen = name, hence, without a  
B name, hence innominate bone = unnamed bone generally  
referring to the hip.
- C insert: Lt. insertio = to join into, implant, hence, to attach; noun -  
D insertion.
- D inspection: Lt. inspectus = examined, hence, visual examination.
- E **insul- island**  
insula: Lt. = island.
- F **Integumentary** (ihn-tehg'-yoo-MEHN-tar-ee) pertaining to the skin &  
G its accessory organs.  
integument: Lt. in = on, tegmen = roof, hence the skin coat.
- H **inter- between**
- I intercalated: adj. Lt. inter = between, and calatum = inserted,  
hence interposed.
- J **Intercalated disk** (ihn-ter'-kaw-LA-ted dihsk) a transverse thickening  
K of a cardiac muscle cell's sarcolemma at its boundary with an  
adjacent cell. It aids in the conduction of an impulse from one cardiac  
L cell to another.
- L **Intercellular** (ihn'-tehr-SEHL-yoo-lar) the area b/n cells.
- M interdigitate: Lt. inter = between, and digitus = a digit, hence, to  
interlock - like fingers.
- N **Internal** (ihn-TER-nawl) a directional term describing a location deep  
O to the surface of the skin relative to something else.  
internal: adj. Lt. internus = inward, hence, nearer the inside.
- P interstitial: adj. Lt. inter = between, and sistum = set, hence, set  
Q between.
- R **Interstitial cells** (ihn'-ter-STIH-shuhl) cells in the testes located b/n  
seminiferous tubules that secrete testosterone. (= cells of Leydig).
- S **Interstitial fluid** (ihn'-tehr-STIH-shuhl FLOO-ihd) the portion of  
extracellular fluid which fills the tissue spaces b/n cells. (= tissue  
T fluid and intercellular fluid).
- U **Intervertebral disk** (ihn'-tehr-VEHR-teh-brahl disk) a cartilaginous  
joint consisting of a pad of fibrocartilage located b/n two adjacent  
V vertebrae.
- W **Intestinal gland** (ihn-TEHS-tihn-awl glahnd) a tubular gland in the  
mucosa of the small intestine which secretes digestive enzymes.  
X (= crypt of Leiberkuhn).
- Y intestine: Lt. intestinum = the digestive tube beyond the stomach.  
intima: Lt. = innermost.
- Z **intra- within**

intra: Lt. = within.

**Intracellular** (ihn'-traw-SEHL-yoo-lar) the space w/n a cell  
 $\neq$  intercellular fluid  $\neq$  extracellular fluid.

**Intracellular fluid (ICF)** the fluid w/n cells.

intrafusil: adj. Lt. intra = within, fusus = spindle.

**Intramembranous ossification** (ihn'-trah-MEHM-braw-nuhs ohs'-ih-fih-KA-shuhn) the development of bone from foetal CT membranes.

intrinsic: adj. Lt. = on the inside.

introitus: Lt. intro = within, and ire = to go, ie an orifice or point of entry to a cavity or space.

inversion: Lt. = in, and vertere = to turn, hence to turn inward, inside out, upside down.

### ipsi- same

ipsilateral: Lt. ipsi = self, the same, and latus = side, hence on the same side  $\neq$  contralateral.

**Iris** (I-rihs) a part of the vascular tunic of the eye. It is located on the anterior side of the eyeball & is composed of smooth muscle fibers that regulate the amount of light entering the eye. The iris is the coloured part of the eye surrounding the pupil.

iris: Lt. = a rainbow.

### isch- suppression, blocking

#### ischi- hip

ischium: Gk. ischion = socket, because the ischium contributes more than either the ilium or pubis to the acetabulum.

**Islet of Langerhans** (I-leht of LANG-er-hawnz) one of numerous clusters of endocrine cells w/n the pancreas.

### iso- equal similar

iso: Gk. = equal.

**Isotonic solution** a solution that contains an equal amount of solutes relative to another.

isthmus: Gk. isthmos - a narrow passage.



# J

**Jejunum** (jeh-JEW-nuhm) the middle segment of the small intestine.  
jejunum: Lt. jejunos = empty, adj.- jejunal.

**Joint** (joynt) a point of contact b/n two opposing bones, which may move. (also = articulation).

joint: the meeting of 2 or more bones or cartilages, at which movement is possible.

**jug- yoke (jug)**

**jug- throat (jug-ew)**

jugular: adj.Lt. jugulum = neck.

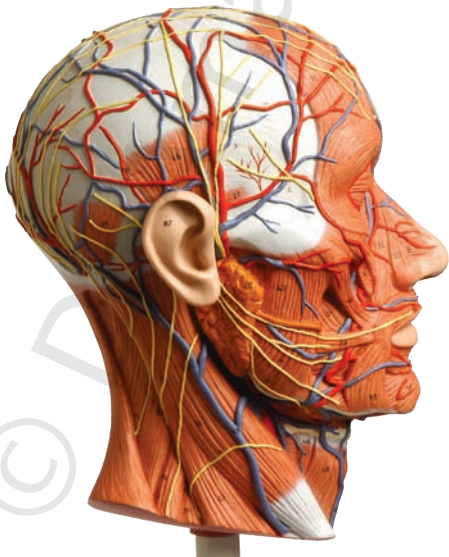
**Jugum** (JOO-gum) referring to the bridge b/n 2 bones generally symmetrical with a Right and Left side (pl. juga)

jugum: Lt. = yoke (cf. conjugal).

**juxta- near to**

juxta: Lt. = near. next to

**Juxtaglomerular apparatus** (juhks'-tah-glo-MER-yoo-lawr ahp'-ah-RAHT-uhs) a structure located in a kidney nephron which is composed of cells from the distal convoluted tubule & the afferent arteriole. It secretes renin in response to a decrease in BP.



# K

**kary-** nucleus

**kel-** tumour

**kerato-** horny, hard, skin, cornea

**Keratin** (KER-ah-tihn) a waterproofing protein present in the epidermis, nails, and hair.

keratin: Gk. keras = horn.

**kine-** move

kinocilium: Gk. kineo = to move (cf. kinetic), and cilium Lt. = eyelash, hence protoplasmic thread of hair process in cupula of crista ampullaris of a semicircular duct.

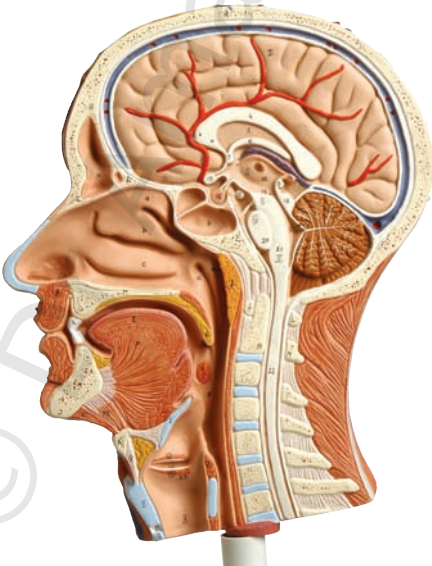
knee: the junction of the thigh and the leg. (see genu = knee)

**koilo-** hollow concave

**kolp-** vagina

koniocortex: Gk. konis = dust, and Lt. cortex = bark, hence, sensory cortex containing mostly granular layers.

kyphosis: Gk. kyphos = bent or bowed forward.



# A B L

## C labi- lip

labium: Lt. = lip (plural labia), adj.- labial.

labrum: Lt. = rim.

labyrinth: Gk. labyrinthos = maze, adj.- labyrinthine.

lacerum: Lt. lacer = mangled, hence, lacerated, torn foramen

lacerum is often torn in head injuries.

## G lacri- tear (lak-ree)

lacrimal: adj. Lt. lacrima = a tear (drop).

lactation: Lt. lactans = suckling. Hence, the act of secreting milk.

**Lacteal** = lactiferous ducts, specialized lymphatic ducts in the small intestine to absorb large fat molecules. When they do so they turn pale or milky.

lacteal: adj. Lt. lac = milk, hence, resembling milk.

lactic: adj. Lt. lac = milk.

lactiferous: adj. Lt. lac = milk, and ferre = to carry.

**Lacuna** (lah-KOO-nah) a chamber w/n bone or cartilage matrix which houses a cell (an osteocyte or chondrocyte). pl. - lacunae.

lacuna: Lt. lacus = lake, hence, a small pond or gap, adj. lacunar.

## N lal- talking

lambda: Gk. letter representing a capital 'L' and written as an inverted V. adj. lambdoid (L-shaped)

**Lamella** (lah-MEHL-a) concentric ring of hardened bone matrix found in compact bone. pl. lamellae

lamella: diminutive of Lt. lamina = plate; hence, a small plate.

**Lamina** (lah-MIN-a) plate as in the lamina of the vertebra a plate of bone connecting the vertical and transverse spines pl. laminae (lah-MIN-ee) laminectomy = removal of the lamina to give access to the SC and its perforating nerves.

lamina: Lt. = plate, either a layer of NT, like the laminae of the lateral geniculate body, or a CT membrane, like lamina cribrosa sclerae, or of bone, as in vertebral laminae; laminectomy = lamina + Gk. ektome = excision - excision of the vertebral laminae, adj.- aminar.

lanugo: Lt. lana = wool, the fine downy hair on the skin of the foetus, or cheeks or malnutrition.

## Y lapar- abdominal cavity

## Z lapis- stone

**Large intestine** the final segment of the alimentary canal consisting of a large tube that forms the faeces, which is expelled by the process of defecation.

**Larynx** (LAR-ihns) a box-like cartilaginous organ in the respiratory tract located b/n the pharynx & the trachea.

larynx: Gk. = voice-box, adj.- laryngeal.

lata: Lt. latus = side.

**Lateral** (LA-tehr-awl) a directional term describing a structure that is located further from the vertical midline of the body relative to another.

lateral: adj. Lt. latus = side, hence, nearer the side.

latissimus: superlative of adj. Lt. latus = wide, hence, latissimus dorsi muscle, the widest muscle of the back; earlier name was anitersor - wiper of the anus.

leg: the lower limb b/n the knee & the ankle.

**leio- smooth**

lemniscus: Gk. lemniskos = a band or ribbon (applied to nerve fibres).

**Lens** an oval, transparent structure located b/n the posterior iris & the vitreous humor of the eyeball. It is connected to the vascular tunic by suspensory ligaments - it is a cataract if it becomes opaque.

lens: Lt. = lentil - transparent body with surfaces curved to re-direct light adj. lentiform or lenticular.

lentiform: adj. Lt. lens = lentil, and forma = shape, hence, lentil-shaped.

**lepto- thi, delicate small mild**

leptomeninx: Gk. lepto = delicate, & meninx = membrane. generally refers to pia & arachnoid meninges

**leuco- white, colourless, pale (AS leuko)**

**leuko- white, colourless, pale (AS leuco)**

**Leucocyte** (LOO-ko-site) a white blood cell. (AS leukocyte).

**Leukocyte** (LOO-ko-site) a white blood cell. (AS leucocyte).

**levator- to lift up ≠ depressor**

levator: Lt. = elevator. ≠ depressor

**lien- spleen (leen)**

lien: Lt. = spleen, adj.- lienal.

**levo- left**

**liga- bind**

**Ligament** (LIHG-ar-ment) a band or cord of dense CT that extends from one bone to another to provide a joint with structural stability.

ligament: Lt. ligamentum = bandage, usually tying parts to each other, adj.- ligamentous.



**limbic:** adj. Lt. limbus = a margin, usually curved. limbus: Lt. = a margin, usually curved, hence, limbus of cornea, its circular junction with the sclera, adj. - limbic; the brain limbic lobe is made up of structures which encircle the junction of the diencephalon and telencephalon.

**limen:** Lt. = a threshold, hence, subliminal - below threshold.

### **linea- line (lin-ee-ah)**

linea: Lt. = line.

### **lingu- tongue**

lingua: Lt. = tongue, adj. lingual.

**Lingual** (LIHN-gwal) pertaining to the tongue. For example, the lingual frenulum connects the tongue to the floor of the mouth.

lingula: diminutive of lingua, hence, a little tongue, adj.- lingular.

### **lio- smooth**

### **lip- fat**

**Lipid** (LIH-pihd) an organic compound that is usually insoluble in water but soluble in alcohol, ether, and chloroform. It includes fats, phospholipids, and steroids.

**Lipoprotein** (lih'-po-PRO-teen) a protein-lipid complex produced by the liver that transports cholesterol and triglycerides through the BS. Low density lipoproteins (LDLs) are associated with an increased risk of atherosclerosis, whereas high density lipoproteins (HDLs) are associated with a reduced risk.

### **lith- stone**

**Liver** a large digestive organ in the superior right corner of the abdominopelvic cavity that functions mainly in the interconversion of energy-storage molecules, detoxification of blood, and production of bile.

**Lobules** when pertaining to the liver, the lobules are cuboidal subdivisions of the liver that contain rows upon rows of hepatocytes.

lobule: diminutive of lobus.

lobulus: Lt. diminutive of lobus, hence, a lobule.

lobus: Gk. lobos = lobe, adj.- lobar.

### **loc- location place**

locus: Lt. a place (cf. location, locate, dislocate).

loin: Lt. lumbus - the part of the back b/n the ribs and the hip bone.

### **longus- long**

longissimus: superlative of Lt. longus = long, hence, the longest.

longitudinal: adj. Lt. longitudo = length, hence, lengthwise.

longus: adj.Lt. = long, hence, longissimus (superlative) = the longest.

**Loose connective tissue** a type of CT consisting of loosely-packed protein fibers of collagen and elastin in a semifluid matrix, which are produced by fibroblasts. (also = areolar tissue). It is the most widespread of all CT.

**luc- light (loo-s)**

lucidum: Lt. lucidus = clear.

**lue- syphilis**

**lumb- loin**

lumbar: Lt. lumbus = loin adj.- see loin.

lumbrical: Lt. lumbricus = worm, hence worm-shaped muscles of the palm.

**Lumen** (LOO-mehn) the potential space w/n a tubular structure. i.e. the hole in the tube

lumen: Lt. = opening, hence the space within a tube.

lunate: adj. Lt. luna = moon, hence, crescentic.

**Lung** one of two large organs in the thoracic cavity which is responsible for the exchange of respiratory gases.

luteum: adj. Lt. = yellow.

**ly- dissolved**

**Lymph** (lihmf) the slow-moving fluid w/n lymphatic vessels of the lymphatic system.

lymph: Lt. lymph - clear spring water. adj. - lymphoid, lymphatic

**Lymph node** a small, oval organ located w/n the lymphatic vessel network.

**Lymph nodules** a compact cluster of lymphocytes w/n a lymph node.

lymphatic: a vessel carrying lymph.

**Lymphatic tissue** a specialized type of CT containing an abundance of lymphocytes. (= lymphoid tissue).

**Lymphatic vessel** a hollow tubular structure similar to a vein that transports lymph in a direction leading toward the heart.

**Lymphocyte** (LIHM-fo-site) a type of WBC lacking large granules in the cytoplasm it plays a central role in immunity.

**lys- disintegrate**

**Lysosome** (LI-so-sohm) a cellular organelle that contains digestive enzymes.

# A B C D E F G H I J K L M

## macro- big

macroscopic: adj. Gk. makros = large, and skopein = to examine; hence, large enough to be seen with the naked eye, e.g., pertaining to gross anatomy.

**Macrophage** (MAK-ro-fahrj) a large phagocytic cell originating from a monocyte.

macula: Lt. = spot (cf. immaculate - spotless); adj. - macular.

**Macula lutea** (MAK-yoo-law LOO-tee-ah) a yellow-colored depression in the retina of the eye.

## magna- large, great

## makro- big

## mal- abnormal bad

## malac- soft

## malar- cheek bone

magna: Lt. = great.

**Major** (MAY-jaw) bigger of the 2 things

**Malleolus**: diminutive of Lt. malleus = hammer, adj. - malleolar.

**Malleus** (MAL-ee-uhs) the lateral ear bone that contacts the tympanic membrane; = the hammer.

malleus: Lt. = a hammer.

mamma: Lt. = breast; adj. - mammary.

**Mammary** (MAM-ar-ree) **gland** a modified sweat gland in the breast that serves as the gland of milk secretion for nourishment of the young.

mammilla: diminutive of mamma; adj. - mamillary.

mandible: Lt. mandere = to chew; hence, the movable lower jaw; adj. - mandibular.

manubrium: Lt. = handle; adj. - manubrial.

## man- hand

manus: Lt. = hand (cf. manual).

**Marrow** (MAR-oh) the soft, highly vascularized tissue w/n bone. It includes yellow marrow, consisting of adipose tissue, and red marrow, which consists of blood-forming tissue (also = haemopoietic tissue).

margin: the edge or border of a surface; adj. - marginal.

masseter: Gk. = chewer; adj. - masseteric.

## mast- pertaining to the breast

**Mast cell** (MAH-st) a basophil that has migrated out of the BS to the extracellular tissue generally found in loose CT. It secretes heparin (an anticoagulant) and serotonin (promotes inflammation) and the immune response .

mastication: Lt. masticere = to chew.

mastoid: adj.Gk. mastos = breast or teat, and eidos = shape or form. (mass-toyd)

**Matrix** (MAY-trihks) the intercellular material in CT.

matrix: Lt. = a female animal used for breeding, womb; refers to ground substance of CT, and nail bed.

maxilla: Lt. = jaw-bone; now used only for the upper jaw; adj. - maxillary.

**maz- breast**

**meat- opening**

**Meatus** (mee-AY-tus) canal opening passage

meatus: Lt. = passage; adj. - meatal.

**medi- middle, intermediate**

**Medial** (MEE-dee-al) a directional term describing a part lying nearer to the vertical midline of the body relative to another part.

medial: adj.Lt. medius = middle; hence, nearer the median plane.

median: Lt. medianus = in the middle.

**Mediastinum** (mee'-dee-ah-STIH-nuhm) the region in the thoracic cavity b/n the two pleural cavities. It consists of the heart, part of the oesophagus, part of the trachea, and the major vessels of the heart.

mediastinum: Lt. medius = middle, and stans = standing; a

median vertical partition, adj - mediastinal.

medius: Lt. = middle.

**Medulla** (meh-DUL-ah) an inner, or deeper, part of an organ. e.g. the medulla of the kidneys, the medulla of the adrenal gland & the lymph node. ≠ cortex

medulla: Lt. = marrow; applied to part of an organ deep to its

cortex; & to the SC & adjoining part of brain stem adj - medullary

**Medulla oblongata** (meh-DUHL-ah ob'-long-GAR-tah) the inferior part of the brain stem.

**Medullary cavity** (mehd-UL-lar-ee KAV-ih-tee) the potential space w/n the shaft of a long bone. In the adult this contains yellow marrow.

**meg- large**

**megalo- large**

**meio- reduce, contract**

**mel- limb, cheek**

**A melan- black**

**Melanin** (MEHL-ah-nihn) a dark pigment released into some parts of the body like the skin.

**Melanocyte** (MEHL-ahn-o-site') a cell normally located deep to the epidermis in the skin that secretes melanin.

**Melanoma** (mehl-an-OH-mah) a highly metastatic malignancy arising from melanocytes in the skin. (also = malignant melanoma).

**Melatonin** (mehl'-ah-TO-nihn) a H secreted by the pineal gland. It may play a role in circadian rhythms.

**Membrane** (MEHM-bran) a thin sheet of tissue that lines or covers body structures. It may contain a thin layer of epithelial tissue and CT, or only CT.

membrane: Lt. membrana = a thin sheet; adj.- membranous.

**Membranous bone** a type of embryonic osseous tissue representing early skeletal development in a late embryo.

**K men- menses**

meninges: pl. of Gk. meninx = a membrane; adj.- meningeal.

meniscus: Lt. menis - a small crescent.

**L ment- mind, chin**

**M** mental: adj.- Lt. mentum = chin; or Lt. mens = mind.

**N mer- part, segment**

**mes- middle**

**O** mesencephalon: Gk. mesos = middle, and enkephalos = brain; adj.- mesencephalic.

**P** mesenchyme: Gk. mesos = middle, & chymos = juice; the embryonic CT of the mesoderm.

**Q** mesentery: Gk. mesos = middle, and enteron = intestine; the peritoneal fold which tethers the centrally placed small intestine; adj. - mesenteric.

**T Mesoderm** (MEEZ-oh-derm) the middle of the three primary germ layers in a developing embryo that forms the muscles, the heart and BVs, & the CT.

**U** mesoderm: Gk. mesos = middle, and derma = skin; the middle germ layer of the embryo.

**W Mesothelium** (mehz'-oh-THEE-lee-uhm) a simple squamous epithelium lining parts of the body's ventral cavity.

**X** mesosalpinx: Gk. mesos = middle, and salpinx = tube; the intermediate part of the broad ligament.

**Y meta- subsequent, transformation, between, changing after**

**Z** metacarpus: Gk. meta = after, and karpus = wrist; adj.- metacarpal.

metaphysis: Gk. meta = after, and physis = growth; hence, b/n the 2 ends of a long bone. alongside the epiphysial or growth cartilage; adj.- metaphysial.

metatarsus: Gk. meta = after, and tarsos = ankle; hence, the bones beyond the tarsus, adj. - metatarsal.

metopic: adj.Gk. metopon = forehead.

### micro- small

**Microfilament** (mi'-kro-FIHL-ah-mehnt) a rod-shaped component of cytoplasm composed of protein. It provides mobility for the cell.

**Microglia** (mi'-kro-GLLEE-aw) a type of neuroglia in the brain characterized by its small size & phagocytic function.

**Microtubule** (mi'-kro-ew-yool) a tube-shaped component of cytoplasm composed of protein providing support and shape for the cell.

**Microvilli** (mi'-kro-VIHL-i) microscopic extensions of the cell membrane filled with cytoplasm that serve to increase the absorptive surface area of the cell.

micturition: Lt. micturare = to desire to pass urine.

### mid- middle

**Midbrain** (MID-brayn) the superior part of the brain stem, located b/n the diencephalon and the pons. It serves as a relay center for impulses. (also = the mesencephalon).

**Middle ear** the area of the ear b/n the tympanic membrane of the outer ear & the bony labyrinth of the inner ear. It is an epithelial-lined space housing the 3 ear ossicles. (also = the tympanic cavity).

**Midsagittal** (MID-sahj-ih-tahl) a plane that extends vertically through the body, dividing it into unequal right and left portions.

### milli- thousandth

### minus- smallest

minus: Lt. = smallest.

### minor- smaller of 2 things

### mio- reduced contraction

miosis: Gk. meiosis = lessening; hence, pupillary constriction; adj.- miotic.

**Mitochondrion** (mite'-o'-KOHN-dree-ohn) a cellular organelle that consists of a double layer of plasma membrane where many of the catabolic activities of the cell take place.

**Mitosis** (mi-TO-sihs) the division of a cell's nucleus into two daughter nuclei, each of which contains the same genetic composition as the original parent. When mitosis is followed by cytokinesis, equal division of the whole cell results.

- A Mixed nerve** a nerve that contains axons from sensory and motor neurons.
- B mnem- memory (mem)**
- C** modality: Lt. modus = mode; hence, a form of sensation - e.g. touch, pain, sight.
- D** modiolus: Lt. a cylindrical borer with a serrated edge; hence, like a screw; the central stem of the bony cochlea.
- E** molar: adj. Lt. mola = mill.
- F Monocyte** (MON-oh-site) a large, agranular WBC that is phagocytic. If the cell moves from the BS to the extracellular tissue, it is called a macrophage.
- H** mons: Lt. = mountain; mons pubis, the soft tissue bulge over the female pubes.
- I morph- shape**
- J** morphology: Gk. morphos = form, and logos = word or relation; hence, study of pattern of structure; adj.- morphological.
- K Motor end plate** the portion of the sarcolemma of a muscle fiber that is in close association with a motor neuron.
- L Motor nerve** a nerve that contains axons from motor neurons, and thereby transmits impulses away from the CNS.
- M Mucosa** (myoo-KO-saw) an epithelial membrane that lines a body cavity or organ & contains cells that secrete mucus. (= mucous membrane).
- N Mucous** (MYOO-kuhs) **cell** a unicellular gland that secretes mucus. (= a goblet cell).
- O Mucus** (MYOO-kuhs) a thick fluid secretion from mucous cells, containing mostly water & polysaccharides.
- R multi- many (mul-tee)**
- S** multifidus: Lt. multus = much, and findere = to split.
- T Muscle** (MUSS-l) an organ composed of skeletal muscle tissue & its associated CT that functions mainly in the production of movement of the skeleton.
- U** muscle: Lt. musculus, diminutive of Gk. mus = mouse, the body and head of which represent the main belly of a muscle, and the tail, the tendon.
- W Muscle fibre** a synonym for muscle cell.
- X Muscle tissue** one of the 4 primary types of tissue in the body, characterized by its ability to contract.
- Y Muscularis** (muhs'-kyoo-LAHR-ihs) a layer of smooth muscle tissue w/n the wall of an organ.
- Z**

**mycet- fungal (my-seet-)**

mydriasis: Gk. = dilatation of the pupil.

**myel- bone marrow , spinal cord**

myelin: Gk. myelos = marrow; hence, white fatty sheath of an axis cylinder; adj. -myelinated.

**Myelin sheath** (MI-eh-lihn sheth) a white, segmented insulative cover over the axons of many peripheral neurons that is produced by Schwann cells. A neuron axon that is covered by the myelin sheath is said to be myelinated.

myenteric: Gk. mys = muscle, and enteron = intestine, pertaining to the muscle of the gut.

**myl- molar**

mylohyoid: Gk. mylo = molar, and hyoeides = U-shaped.

**Myocardium** (mi'-o-KAHR-dee-uhm) the primary layer of the heart wall, composed of cardiac muscle tissue.

myocardium: Gk. mys = muscle, and kardia = heart, adj. - myocardial.

**Myofibril** (mi'-o-FI-brihl) a rod-shaped component of a muscle fibre, which extends the length of the fibre and is composed of thin and thick filaments of protein.

**Myometrium** (mi'-o-MEE-tree-uhm) the smooth muscle layer in the wall of the uterus.

myotome: Gk. mys = muscle, and tome = a cutting; a group of muscles innervated by spinal segment.

**myx- mucoid (mix)**

Head Clamp



# A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**Nail** a thin, hard plate of mostly keratin, derived from the epidermis and develops at the distal end of the fingers and toes.

## **narc- stupor**

nares: plural, Lt. naris = nostril.

## **nas- nose (nays-)**

## **naris- nose (na-ris-)**

naris: Lt. = nostril, plural - nares.

nasal: adj. Lt. nasus = nose; hence, pertaining to the nose.

natal: adj. Lt. natus = born; hence, pertaining of birth.

navicular: Lt. navicula = a little ship; the tarsal bone is concave posteriorly, resembling a boat.

## **necro- death**

**Necrosis** (neh-KRO-sihs) death of a cell, a group of cells, or a tissue due to disease.

neo-: Gk. prefix - neos = new.

neonatal: adj. Gk. neos = new, and Lt. natus = born; hence, new-born.

neopallium: Gk. neos = new, and Lt. pallium = cloak; hence, the cerebral cortex which developed more recently than the archipallium or olfactory cortex.

## **nephro- renal kidney**

**Nephron** (NEH-frohn) the smallest functioning unit of the kidney each of which filters, reabsorbs and secretes the non-protein fluid of the blood.

**Nerve** an organ of the NS composed of a bundle of neurons, axons and dendrites invested & surrounded by CT and BVs, which functions in the conduction of an impulse from one area of the body to another.

nerve: Lt. nervus = tendon; now a peripheral fibre bundle which conducts impulses to/from the CNS

**Nerve bundle** also known as a nerve fasciculus, it is a cord of individual myelinated axons surrounded by perineurium. Numerous bundles compose a single nerve.

**Nerve impulse** a wave of negative charges (depolarization) that propagates along the outer surface of the plasma membrane of a conductive cell, such as a neuron. (also = an action potential).

**Nervous tissue** a tissue that consists of two generalized cell types, neurons and neuroglia. Neurons are specialized to initiate action potentials and conduct them at high speeds. Neuroglia provide numerous supportive functions, they are the CT cells of the CNS.

**Nerve trunk** a combination of nerves that are secured together by epineurium to form a thickened cord of NT.

### neur- nerve

neural: adj. Gk. neuron = nerve adj. neurium.

**Neurilemma** (noo'-rih-LEHM-ah) the outer layer of a myelin sheath associated with a nerve fiber that contains the nucleus and much of the cytoplasm of a Schwann cell.

**Neurocranium** (new-ROH-kray-NEE-uhm) the part of the skull which houses the brain.

**Neuroglia** (new'-ROHG-lee-ah) supportive cells of the NS that are most prevalent in the brain and spinal cord. (sing. = pl. )

neuroglia: Gk. neuron = nerve, and glia = glue; the CT of the CNS adj. neuroglial.

**Neurohypophysis:** also = the posterior lobe of the pituitary gland. It is composed of NT and is connected to the hypothalamus of the brain by the narrow stalk, the infundibulum. The neurohypophysis receives two hormones released by neurons in the hypothalamus, oxytocin and antidiuretic hormone (ADH).

neurohypophysis: or posterior lobe of hypophysis - Gk. hypo = down, and physis = growth; hence, the posterior part of the hypophysis evaginated downwards from the diencephalon, and its stalk.

neurolemma: Gk. neuron = nerve, and lemma = peel or rind; hence, the covering layer of a nerve.

**Neuromuscular junction** (new'-ro-MUHS-kyoo-lawr JUHNK-shuhn) the area of contact b/n the terminal end of a motor neuron and the sarcolemma of a skeletal muscle fiber.

**Neuron** (NEW-ron) a cell of NT characterized by its specialization to conduct impulses (conductivity).

neuron: Gk. = nerve; refers to the nerve cell body, with its axon and dendrites; adj- neuronal.

**Neurosecretory** (new'-roh-seh-KREE-tor-ee) **cells** Neurons that extend from the hypothalamus to the posterior lobe of the pituitary gland and secrete the hormones oxytocin (OT) and antidiuretic hormone (ADH).

- A Neurotransmitter** (new'-ro-TRANS-miht-ah) a molecule that transmits or inhibits the transmission of a nerve impulse from one neuron to another across a synapse.
- C neutro- neutral**
- D Neutrophil** (NEW-tro-fihl) a type of granular, phagocytic WBC characterized by a cytoplasm that stains pink/purple in a neutral stain i.e. does not preferentially take up either acid or base of the stain.  
nigra: Lt. niger = black, dark.
- F noci- pain (noh-see)**  
node: Lt. nodus = knot.
- G Node of Ranvier** (rahn'-vee-A) a gap in the myelin sheath covering a nerve fiber. It accelerates the rate of impulse conduction.  
nodule: diminutive of Lt. nodus = knot, hence, a little knot.  
norma: Lt. = pattern or rule, or aspect; adj. normal - according to rule.  
notch: an indentation in the margin of a structure in organs (e.g. liver, frontal bone).  
notochord: Gk. notos = back, and chorde = cord; hence, the primitive axial skeleton around which the vertebrae develop, parts persisting in the nuclei pulposi.
- M nucha- nape of the neck (new-kah-)**  
nucha: French nuque = nape or back of the neck; adj.- nuchal.
- O Nucleolus** (new-KLEE-o-luhs) a spherical body w/n the nucleus of a cell, not bound by a plasma membrane. It functions in the storage of ribosomal RNA.
- Q Nucleus** (NOO-kee-uhs) the largest structure in a cell. It contains the genetic material to determine protein structure and function, the DNA, and is enveloped by a double-layered plasma membrane. (also, the dense core of an atom containing protons and neutrons).  
nucleus: Lt. = kernel or nut; may refer to the vital centre of a cell body, or to a cluster of neuron cells in the CNS; adj.- nuclear.  
nystagmus: Gk. = drowsiness, to nod, hence, involuntary, rapid, rhythmic eye movements.

## O

**ob- against, in front of**

obex: Lt. = barrier; hence, the coronal fold of ependyma over the lower angle of the 4th ventricle.

**Oblique** (OH-bleek) *slanting or deviated*

oblique: adj. Lt. obliquus; slanting, or deviating from the perpendicular or the horizontal.

oblongata: Lt. oblongus = oblong; medulla oblongata.

obturator: Lt. obturatus = stopped up; hence, a structure which closes a hole.

**oc- against in front of**

occiput: Lt. ob = prominent and caput = head; the prominent convexity of the back of the head;

occlusion: Lt. occlusum = closed up; apposition of reciprocal teeth; blocking of any tubular structure;

oculomotor: Lt. oculus = eye, and movere = to move, hence, pertaining to moving the eye.

**ocul- eye (ok-ewl)**

oculus: Lt. = eye.

**oedem- swelling**

odontoid: Gk. odous = tooth, and eidos = form, shape, hence, tooth-like.

oesophagus: Gk. = gullet (passage from pharynx to stomach);  
adj. - oesophageal.

**Olecranon** (OH-lek-ran-on) *to do with the elbow*

olecranon: Gk. olene = ulna, and kranion = upper part of head; the upper end of the ulna.

olfactory: adj. Lt. olfacto = smell.

**olig- scant, deficient, few, little**

olive: Lt. oliva - the oval fruit of the olive tree; oval eminence on medulla oblongata; adj - olivary.

**om- shoulder**

omentum: Lt. = apron; adj. - omental.

omohyoid: Gk. omos = shoulder; hence, a muscle attached to the scapula and hyoid.

**onc- cancer**

**Oncogene** (OHN-ko-jeen) *a gene that can transform the cell into an oocyte*

**A onycho- to do with finger and toenails (onee-koh)**

**B Oocyte** (O-ah-site) A gamete produced within an ovary. (also = ovum or egg).

**C operculum:** Lt. = lid or cover; operculum insulae, the cerebral cortex covering & hiding the insula

**D ophthalmic:** adj. Gk. ophthalmos = eye.

**E opponens:** Lt. = placing against, opposing.

**F oppose:** Lt. oppositum = put against; hence, to resist or place in contact with

**G optic:** adj. Gk. optos = seen; hence, pertaining to sight.

**H Optic disk** the area on the retina where the optic nerve exits the eye and contains no rod or cone cells. (also = the blind spot).

**I or- ora- mouth**

**J ora:** Lt. ora = margin or edge.

**K ora serrata:** Lt. ora = margin, and serra = saw; the serrated anterior edge of the retina.

**L oral:** Lt. oris = a mouth, hence, pertaining to the mouth.

**L orbit:** Lt. orbis = circle; the name given to the bony socket in which the eyeball rotates; adj - orbital.

**M Organ** (OR-gan) an organized combination of two or more different types of tissues which performs a general function.

**N Organ of Corti** (KOR-ti) the structure within the inner ear that contains receptor cells sensitive to sound vibrations.

**O Organelle** (or-gan-EHL) a component of a cell that has a consistent, similar structure in other cells and performs a particular function.

**P orifice:** Lt. orificium = opening.

**Q ortho- straight straightening (or-thoh)**

**R ortho** Gk. orthos = straight combining form meaning straight, normal, correct

**S os, oris:** Lt. os = mouth; pl. - ora, adj. - oral.

**T os, ossis:** Lt. os = bone; pl. - ossa, adj. - osseous.

**U -osis condition of**

**V Osseous** (OS-ee-uhs) pertaining to bone.

**W ossicle:** Lt. ossiculus, diminutive of os = bone.

**W ossify:** Lt. os = bone, and facio = make; to form bone; and

**W ossification,** the process of forming bone

**X Osteoblast** (OS-tee-o-blahst') a type of bone cell characterized by its mobility, its ability to divide and to produce bone matrix.

**Y Osteoclast** (OS-tee-o-klahst') a type of bone cell characterized by its ability to dissolve bone matrix.

**Z Osteocyte** (OS-tee-o-site') a type of bone cell characterized by its

immobile location within a lacunus and by a reduced ability to produce bone matrix.

osteology: Gk. osteon = bone, logy = a field of study.

**Osteon** (OS-tee-on) an organized arrangement of bone tissue in adult compact bone such that the bone matrix concentrically surrounds a central canal containing a BV. (also = an Haversian system).

**Osteonic canal** the central canal in an osteon that contains a BV. (also = Haversian canal).

**-osteum pertaining to bone (os-tee-um)**

osteum: Lt. pertaining to bone

ostium: Lt. = a door, an opening, an orifice.

**ot- ear**

otic: adj. Gk. otos = ear.

**Otoliths** small calcium carbonate crystals located w/n the maculae of the inner ear's utricle and saccule. The otoliths move in response to head movements, shifting their mass which distorts the hair cell processes. As a result, nerve impulses are generated to the brain for interpretation as head movements for static equilibrium.

otolith: Gk. otos = ear, and lithos = stone; hence, calcareous particles in the utricle and saccule of the membranous labyrinth.

**Ovary** (OH-vahr-ee) the female gonad, or primary reproductive organ that produces gametes and female sex hormones

ovary: Lt. ovum = egg; hence, the organ containing ova (the largest cells in the female).

ovum: Lt. = egg, plural - ova.

**oxy- sharp**



# A P

**Pacinian corpuscle** (pa-SIHN-ee-an KOR-puhs-ehl) a receptor located in the dermis that responds to touch (pressure).

**pachy- thick** (pak-ee)

**paed- child**

palate: Lt. palatum = palate, adj.- palatal or palat.e.

paleo: Gk. palaios = old; hence, paleocerebellum, the earliest stage in the evolution of the cerebellum.

**pali- recurrence**

pallidus: adj.Lt. = pale.

pallium: Lt. = cloak; the cerebral cortex forming the outer covering of the cerebral hemisphere.

palma: Lt. palma = palm; adj, palmar - Lt. palmaris.

palpate: Lt. palpare = to touch, and palpatus = touched; to examine by feeling, and palpation.

palpebra: Lt. = eyelid,

pampiniform: adj. Lt. pampinus = tendril, and forma = shape.

**pan- general overall**

**Pancreas** (PAN-kree-as) a soft, oblong organ located posterior to the stomach in the abdominal cavity. The pancreas secretes digestive enzymes and hormones that regulate blood sugar.

pancreas: Gk. = sweetbread, derived from Gk. pan = all, and kreas = flesh; adj. pancreatic.

panniculus: diminutive of Lt. pannus = cloth.

**Papilla** (paw-PIHL-ah) a small finger-shaped projection.

papilla: Lt. = nipple or teat; adj.- papillary.

**par- beside**

**para- against, aside, abnormal, unequal**

paradidymis: Gk. para = beside of near, and didymis = twinned or paired, refers to testes; the collection of convoluted tubules in the spermatic cord, above the head of the epididymis.

paraesthesia: Gk. para = beside, and aesthesia = sensation; abnormal sensation, eg burning or pricking.

paralysis: Gk. para = beside, near, lyein = to loosen; loss or impairment of muscle function.

parametrium: Gk. para = beside, & metra = womb; CT within the broad ligament alongside the uterus.

paraplegia: Gk. para = beside, and plege = a stroke; paralysis of the lower limbs.

pararenal: adj. Gk para = beside, Lt. ren = kidney; beside the kidney, eg, pararenal fat, the fatty capsule of the kidney

**Parasagittal** (pahr'-ah-SAHJ-ih-tahl) A plane that extends vertically through the body dividing it into unequal right and left portions.

parasternal: adj. Gk. para = beside, and sternon = chest; the parasternal line is a vertical line midway b/n the sternal edge & the midclavicular line.

**Parasympathetic division** (pahr'-ah-sihmp-ah-THEH-tihk dih-VISH-zhuhn) the component of the ANS that stimulates activities which conserve body energy and direct BF to the GIT &/or the sexual organs. The nerves synapse "beside" the organs they affect.

parasympathetic: adj. Gk para = beside, syn = with, and pathos = feeling; part of the autonomic NS which is complementary to the sympathetic NS

**Parathyroid** (pahr'-ah-THI-royd) **gland** One of 4 or 5 pea-shaped glands located embedded into the posterior side of the thyroid gland.

parathyroid: adj. Gk. para = beside, (thyroid); beside the thyroid gland.

**Parenchyma** (par'-EN-kihm-ah) the functioning elements of an organ as opposed to the structural or supporting elements (also  $\neq$  stroma)

parenchyma: Gk para = beside or near, en = in, and chein = to pour; designating the functional elements of an organ, as opposed to the framework or stroma.

paresis: Gk. = relaxation, but has come to mean partial paralysis.

**Parietal** (pa-RI-eh-tal) pertaining to the outer wall of a cavity or organ e.i. parietal layer of the pericardium outer of the 2 layers of the pericardium  $\neq$  visceral.

parietal: adj. Lt. parietalis, pertaining to paries = wall.

**Parietal cell** a cell in the stomach mucosa that secretes hydrochloric acid and intrinsic factor.

**Parietal pericardium** (peh-ree-KARD-ee-um) the outer serous membrane covering the heart.(also = the pericardial sac).

**Parietal pleura** (PLEW-rah) the outer serous membrane associated with each lung. It is attached to the inner thoracic wall.

**Parotid** (pah-ROHT-ihd) **glands** a pair of salivary glands, each of which is located between the skin of the cheek and the masseter muscle on a side of the face.

parotid: adj. Gk. para = beside, and otos = of the ear; hence, beside the ear.

parous: adj. Lt. pario = I bear (children); adj. applied to women who have borne children  $\neq$  nulliparous,



- A pars: Lt. = part.
- B **part- childbirth**
- B patella: Lt. a small pan; adj.- patellar.
- C **path- disease**
- D **Pathology** (pahth-OH-loh-jee) the study or science of diseases.
- D pecten: Lt. = comb.
- E pectinate: adj. from Lt. pecten = a comb; applied to structures having the appearance of parallel teeth arising from a straight
- F back (eg. muscoli pectinati) pectineal: adj.
- G pectineus: Lt., pecten = a comb; hence the muscle attaching to the pecten (pectineal line) of the pubic bone.
- H pectoral: adj. Lt. pectoris = of the front of the chest.
- I pectoralis: adj. Lt. pectoris = of the front of the chest.
- J pedicle: diminutive of Lt. pedis = of the foot.
- J pedis: Lt. = of the foot.
- K peduncle: variation of pedicle.
- K pellucidum: adj. Lt. per = through, and lucere - to shine; translucent.
- L pelvis: Lt. = basin, adj.- pelvic.
- M **Penis** (PEE-nih) the external reproductive organ of the male through which most of the urethra extends.
- N penis: Lt. = tail, the male organ of copulation (cf. appendix, appendage).
- O
- P pennate: Lt. penna = feather; hence, a muscle whose fibres approach the tendon from one direction is unipennate; from two, bipennate, and from more than two, multipennate.
- Q
- R pennatus: (pinnate) - adj. Lt. penna = feather; hence, a muscle whose fibres approach the tendon from one direction is unipennate; from two, bipennate, and from >2, multipennate.
- S
- T **per- through / excessive**
- T **peri- around, about / beyond**
- U perianal: adj. Gk. peri = around, and Lt. anus = lower opening of alimentary canal.
- V **Pericardial** (pear'-ih-KAR-dee-ahl) **cavity** a narrow space b/n the outer wall of the heart (the visceral pericardium) & the parietal pericardium. It contains pericardial fluid.
- W
- X **Pericardium** (pear'-ih-KAR-dee-uhm) the serous membrane associated with the heart, composed of two layers, an inner visceral pericardium and an outer parietal pericardium.
- Y
- Z pericardium: Gk. peri = around, and kardia = heart; hence, the membranes enclosing the heart.

**Perichondrium** (pear'-ih-KOHN-dree-uhm) a layer of dense CT that envelopes cartilage.

perichondrium: Gk. peri = around, and chondros = cartilage; hence, the membrane covering cartilage.

pericranium: Gk. peri = around, and kranion = skull; hence, the external periosteum of the skull.

perilymph: Gk. peri = around, and lymph - Lt. = clear water; the fluid in the bony labyrinth surrounding the membranous labyrinth (and continuous with the CSF).

**Perimysium** (pear'-ih-MI-see-uhm) an extension of the epimysium of muscle that invaginates inward to divide a muscle into bundles.

perineum: Gk. the caudal aspect of the trunk b/n the thighs, or, the region of the trunk below the pelvis

**Perineurium** (pear'-ih-NYEW-ree-uhm) an extension of the epineurium of a nerve that invaginates inward to wrap around bundles of nerve fibers.

pelvic diaphragm; adj.- perineal.

periodontal: adj.Gk. peri = around, and odont = tooth.

**Periodontal ligament** (pear'-ee-o-DON-tal LIG-ah-ment) a CT membrane that surrounds a tooth and connects it to the bone of the jaw.

**Periosteum** (pear'-ee-OS-tee-uhm) the CT covering around a bone that is important in bone growth, nutrition, and repair.

periosteum: Gk. peri = around, and osteon = bone; the membrane around a bone.

**Peripheral** (per-IH-fehr-ahl) **nervous system (PNS)** The division of the NS consisting of nerves and ganglia located between the CNS and the body surfaces.

peripheral: adj.Gk. peri = around and phero = carry; away from the centre (c.f. periphery).

peristalsis: Gk. peri = around, and stellein - to constrict; a circular constriction passing as a wave along a muscular tube; adj.-

peristaltic.

**Peritoneal** (pear'-ih-to-NEE-awl) **cavity** the space between the parietal peritoneum and the visceral peritoneum. It contains a small amount of fluid.

**Peritoneum** (per'-ih-to-NEE-uhm) the extensive serous membrane associated with the abdominopelvic cavity.

peritoneum: Gk. periteino = to stretch around; the membrane stretched around the internal surface of the walls and the external aspect of some of the contents of the abdomen; adj.- peritoneal.

- A pero- stunted, malformed**
- B Peroxisomes** (pehr-OHX-ih-sohmz) small, spherical cellular organelles similar to lysosomes that play catabolic roles in the cell.
- C peroneal:** adj.Gk. perone = clasp, brooch - see fibula.  
**pes:** Lt. = foot.
- D petr- rock, stone**
- E petrosal:** adj.Lt. petrosus = rocky. / **petrous:** adj.Lt. petrosus = rocky.
- F Peyer's patches** (PA-yehrz PAH-chuhz) clusters of lymphatic tissue (farj-) containing numerous WBC that are located in the wall of the small intestine.
- H phag- eater**
- I Phagocytosis** (fayg'-o-sih-TO-sihs) a type of cytolysis in which bulk solid materials may be transported into a cell. It is performed by WBCs for the removal of harmful particles and cells from the body. Large groups of WBCs may coalesce to form Giant cells to engulf large particles such as cotton fibres.
- K phalang- fingers or toes (falanj-)**
- L phalanx:** Lt. = row of soldiers; one of the small bones of a digit,  
**pl-** phalanges, adj.- phalangeal.  
**phallus:** Gk. phallos = penis.
- M phan- appear visible**
- O phao- brown, dusky**
- P Pharynx** (FAHR-ihnks) a tube that extends from the level of the internal nares to its union with the larynx, which transports air, food, and liquid.
- Q pharynx:** Gk. = throat; adj.- pharyngeal.
- R phas- appear visible, speak utter**
- S phen- light bright manifest**
- T philtrum:** Gk. philtron - the median sulcus of the upper lip.
- U phleb- vein (fleb-)**
- phleg- inflammation**
- V phon- voice**
- W phonation:** Gk. phone = sound or voice; the production of either.
- X phren- mind, diaphragm**
- phrenic:** Gk. phren = diaphragm or mind; hence, diaphragmatic (cf. schizophrenic).
- Y physi- natural (fizz-ee)**
- Z pia:** Lt. = faithful, the membrane which faithfully follows the contour of the brain and SC. = soft

**Pia mater** (PE-ah MA-tehr) The innermost of the three meninges surrounding the brain and SC.

pilomotor: Lt. pilus = a hair, and movere = to move; the action of the arrectores pilorum muscles.

pilus: Lt. = a hair.

**Pineal** (pie-NEE-ahl) **gland** a small endocrine gland located at the posterior end of the diencephalon, forming a part of the roof of the third ventricle. (also = the epithalamus).

pineal: adj. Lt. pinea = a pine cone; hence, the pineal gland which is cone-shaped.

**Pinocytosis** (pihn'-o-sih-TO-sihs) a type of exocytosis in which bulk amounts of fluid are transported into the cell.

piriform: adj. Lt. pirum = a pear; hence, pear-shaped.

pisiform: adj. Lt. pisum = a pea; hence, pea-shaped.

pituitary: Lt. pituita = mucous or phlegm, the gland was thought to produce mucous which was discharged through the nose.

**Pituitary** (pih-TEW-ih-tahr-ee) **gland** a small, functionally important endocrine gland located inferior to the hypothalamus and attached to it by way of a short stalk. (also = the hypophysis).

placenta: Lt. = a flat, round cake.

placode: Gk. plax = plate or flat, and eidos = shape or form.

**plan- flat level, to wander**

**plat- broad flat**

plane: Lt. planus = flat; hence, a real or imaginary flat surface.

planta: Lt. the sole of the foot; adj.- plantar or plantaris.

plantar: adj. Lt. planta = the sole of the foot.

**Plasma** (PLAHZ-mah) the extracellular fluid that forms a portion of blood.

**Plasma membrane** a microscopic barrier associated with cells composed mainly of a phospholipid bilayer and protein. The outer plasma membrane of a cell is also called the cell membrane.

**Platelet** (PLA-teh-leht) a formed element of blood that is active in blood clot formation.

platysma: Gk. = flat object; the flat, subcutaneous muscle extending from below the clavicle to the mouth.

**pleo- many (plee-oh-)**

**pleur- lungs, respiratory**

**Pleura** (PLEW-rah) the serous membrane associated with the lungs. It consists of an inner visceral layer and an outer parietal layer.

pleura: Gk. = a rib. Later used to name the serous membrane lining the chest walls and the lungs.

- Pleural cavity** a narrow space between the visceral and parietal pleurae that contains pleural fluid.
- Plexus** (PLEHKS-uhs) a network of interconnecting nerves, veins, or lymphatic vessels.  
plexus: Lt. = a network or plait.  
plica: Lt. plicare = to fold; hence, a fold.
- pluri- several**
- pne- air, breathe (new)**  
pneumon: Gk. pneuma = air.
- pod- foot**
- Podocyte** (PO-doh-site) a fenestrated cell forming the visceral layer of Bowman's capsule in the kidneys.
- poikilo- irregular**
- polio- grey (poh-lih-oh)**
- pollex- thumb**  
pollex: Lt. = thumb.  
pollicis: genitive (possessive case) of Lt. pollex = thumb; hence of the thumb.
- poly- many**
- Pons** (pohnz) a part of the brain located between the midbrain and the medulla oblongata.  
pons: Lt. = bridge; adj.- pontine; part of the brain stem.
- pont- bridge**
- popliteus**: Lt. poples = the ham or thigh, and sometimes, the knee; adj. popliteal, referring to the fossa behind the knee or its contents.
- por- passageway**  
porta: Lt. = a gate, also Lt. portare = to carry; hence, the portal system carries venous blood from the alimentary tract to the porta hepatis; adj.- portal.  
porus: Lt. a pore or foramen; hence, the openings of the acoustic meatuses.
- post- after behind**
- postero- posterior part**
- Posterior** (po-STEER-ee-or) a directional term describing the location of a part being toward the back or rear side relative to another part.  
In humans it is also known as dorsal.  
posterior: adj. Lt. post = behind (in place or time).
- Posterior horn** a region of the SC grey matter containing sensory neuron cell bodies. (also = the ventral horn).

**Posterior root** the structure merging with the SC on its posterior aspect that contains sensory nerves. (also = the dorsal root).

**Posterior pituitary gland** the part of the pituitary gland at the base of the brain consisting of the axons of neurons originating in the hypothalamus and supporting tissue.

posture: Lt. positus = placed; hence, the position of the body as a whole at a given moment, e.g. erect, recumbent, prone, supine, sitting, kneeling.

**prae- in front of before**

**pre- in front of before**

precuneus: Lt. pre = before, and cuneus = wedge; the parietal lobule anterior to the cuneus.

prepuce: Lt. praeputium = foreskin (of penis or clitoris).

**presby- old**

**prim- first**

**Primary germ layer** One of 3 layers of cells that differentiate during the embryonic stage to give rise to all tissues in the body. They are the endoderm, mesoderm, and ectoderm.

princeps: Lt. primus = chief, and capere = to take; hence chief or principal.

procerus: Lt. = slender, elongated; hence, the vertical slip of muscle between the medial part of frontalis and the root of the nose.

**pro- in front of**

**Process** (PROH-sehs) general term used to describe any marked projection or prominence

process/processus: Lt. = going forwards, indicating growing out, ie. an outgrowth, usually bone eg, the zygomatic process of the temporal.

**proct- anus rectum**

profundus: Lt. pro = before, and fundus = bottom; hence profundus = deep.

prominens: Lt. = projecting.

promontory: Lt. promontorium = a headland, ie. part of land jutting into the sea - a bony prominence.

pronate: Lt. pronatus = bent forwards; to pronate = to turn the hand so that the palm faces downwards or posteriorly supinate.

prone: Lt. pronatus = bent forwards; recumbent face-down posture.

A **pronus- face down**

B proprioceptive: Lt. proprius = one's own, and captum = taken;  
C sensory impulses received by the joints and muscles within one's  
own body.

D **pros- forward anterior**

E prosection: Lt. pro = before, and sectum = cut. A dissection to  
F demonstrate anatomic structures.  
G prosector: Lt. pro = before, and sectum = cut. One who prepares  
an anatomical dissection  
H prosencephalon: Lt. pro = in front, and Gk. enkephalos = brain;  
part of the brain rostral to the midbrain.

I **Prostate (PROH-stat) gland** a walnut-shaped gland surrounding the  
urethra as it emerges from the urinary bladder in males. Its  
secretions contribute to semen.

J prostate: Gk. pro = before, & Lt. = statum = stood; something  
K which stands before – e.g. the prostate gland stands before the  
urinary bladder.

L protract: Lt. protractus = drawn out; hence, to put forwards (e.g.,  
shoulder or mandible). Protraction - the act of protracting.

M protrude: Lt. protrudo = thrust forwards, e.g. the tongue;  
N protrusion - the act of protruding.

O protuberance: Lt. protubero = I bulge out; hence, a bulging bony  
feature (see tuber).

P **Proximal (PROHKS-ih-mal)** a directional term indicating a body part  
that is located nearer to the origin or point of attachment to the trunk  
Q than another; opposite of distal.

R proximal: adj .Lt. proxime = nearest; hence, nearer to the root of  
a limb.

S **pseudo- false (syoo-doh)**

T **Pseudopod (SOO-do-pohd)** a streaming extension of plasma  
membrane-bound cytoplasm from a mobile cell.

U **Pseudostratified (sew'-do-STRAHT-ih-fide)** pertaining to a single  
V layer of epithelial cells which appears multi-layered when viewed in a  
prepared slide.

W pseudostratified Lt. pseudo = false stratified = multi-layered

X **psor- itching (saw-)**

Y psoras: Gk. = loin.

Z **pter- wing (ter-)**

Y pterion: Gk. pteron = wing; the region where the tip of the greater  
wing of the sphenoid meets or is close to the parietal, separating

the frontal from the squamous temporal; alternatively the region where these 4 bones meet.

pterygoid: adj.Gk. pteryx = wing, and eidos = shape; hence, wing-shaped.

ptosis: Gk. = fall; hence, drooping of an eyelid, or descent of an internal organ.

puberty: Lt. puber = adult; hence, the time when hair appears in the pubic region - i.e., near the pubis - as a secondary sexual characteristic.

pubes: Lt. = adult or signs of manhood, hence the lower abdominal secondary sexual hair.

pudendal: adj.Lt. pudendus = shameful; hence, pertaining to the external genitalia.

pulmonary: adj.Lt. pulmo = lung.

pulp: Lt. pulpa = a soft part of the body or tooth.

**Pulp cavity** the space w/n a tooth that is filled with pulp, which consists of CT containing BVs & Ns.

pulposus: Lt. pulpa = a soft part of the body or tooth, hence pulpy or soft.

pulvinar: Lt. pulvinus = rounded cushion; the posterior end of the thalamus.

punctum: Lt. = a sharp point; hence a very small point or orifice.

pupil: Lt. pupilla = the central black orifice in the iris; adj.- pupillary.

**Pupil** (PYOO-pihl) the small hole through the centre of the iris in the eye through which light passes.

**Purkinje cells** Large, highly branched neurons in the cerebellar cortex that receive input from many thousands of synapses.

**purpur- purple**

putamen: Lt. = peel, husk or shell of fruit or seed (the external part of the lentiform nucleus).

pyelogram: Gk. pyelos = basin, and gramma = diagram; hence, radiograph of the renal pelvis (and usually of the ureter) after filling with contrast medium.

pylorus: Gk. = gate-keeper; hence, the part of the pyloric canal containing the sphincter, which guards the opening into the duodenum; adj.- pyloric.

pyramid: Gk. pyramis = a pyramid (solid with 3- or more-sided base, and flat sides

**Pyramidal cells** neurons w/n the cerebral cortex of the brain which initiate somatic motor impulses.



# Q

## quad- four

quadrangular: Lt. quadri = four and angulus = angle; hence square or rectangular.

quadratus: Lt. = square or rectangular.

quadriceps: Lt. quadri = four, and caput = head; hence, a 4-headed muscle.

quadrigeminus: Lt. quadri = four, and gemini = paired or twinned; hence four-fold.

# R

## rachi- spine vertebral column

## radi- root, spine, radiation

radiation: Lt. radiatus = radiant; hence, divergence from a common centre (c.f. radius).

radicle: diminutive of Lt. radix = root; hence a small root, adj.-radicular.

radius: Lt. = spoke of a wheel, which rotates around the hub; hence, the lateral bone of the forearm, which rotates (though around an almost vertical axis); adj.- radial.

radix: Lt. = root.

ramify: Lt. ramus = a branch; and facere = to make; hence, to branch.

## rami- branch (ray-mee)

ramus: Lt. = branch; hence, a branch of a nerve, bone or blood vessel.

raphe: Gk. a seam; hence, the line of junction of the edges of 2 muscles or areas of skin.

## re- return, back again

**Receptor** (ree-SEHP-tor) a structure that is capable of responding to a stimulus by initiating a nerve impulse.

recess: Lt. recessus = a secluded area or pocket; a small cavity set apart from a main cavity.

rectum: adj. Lt. rectus = straight. (The rectum was named in animals where it is straight - not so in Man).

rectus: Lt. rectus = straight.

recurrent: Lt. re = back, and currere = to run; hence a structure which bends, then runs back to its source.

**Red bone marrow** a CT located within spongy bone which contains the stem cells & their differentiated forms involved in blood cell formation.

**Red pulp:** part of the interior areas of the spleen (the other is white pulp). Red pulp serves as a storage area for erythrocytes (RBCs), and consists of venous sinuses and cords of CT known as splenic cords. This is contractile in rodents and allows for the release of blood in shock conditions.

reflex: an involuntary response - muscular or secretory - to a stimulus mediated by the CNS.

**Region** (REE-jon) an area often of the abdomen defined by anatomical surface markers, used to enter the abdomen or to locate pain or an abnormality smaller than a zone or zona.

**ren- kidney**

**Renal** (REE-nawl) pertaining to the kidneys.

renal: adj.Lt. ren = kidney.

**Renal corpuscle** (REE-nal KOR-puhs-ehl) the portion of a kidney nephron consisting of the Bowman's capsule and glomerulus (see Corpuscle).

**Renal cortex** the outer part of a kidney, which contains renal corpuscles and segments of renal tubules.

**Renal medulla** the inner part of a kidney. It contains renal tubules and BVs. W/n the renal medulla are the renal pyramids, which are striated pyramid-shaped areas formed by the congregation of renal tubules.

**Renal pelvis** (REE-nal PEHL-vihs) a membrane-lined basin w/n the renal sinus of each kidney.

**Renal pyramid** (REE-nal PEER-a-mihd) One of about 8 to 10 cone-shaped structures in each kidney extending from the medulla to the cortex, which contain the renal tubules.

**Renal sinus** (REE-nal SI-nuhs) a potential space w/n each kidney extending from the hilum to the medulla. It contains the renal pelvis.

**Renal tubule** (REE-nal TEW-byewl) part of a nephron of the kidney consisting of a simple epithelial lined tube extending from Bowman's capsule to a collecting duct. There are 3 parts to each tubule: the proximal convoluted tubule, the Loop of Henle (= renal loop) and the distal convoluted tubule. The functions of reabsorption, secretion concentration or dilution occur across the walls.

**Respiratory membrane** the barrier in the lungs which must be crossed by gas molecules during gas exchange. It consists of the alveolar epithelium, a BM, and the endothelium of a capillary.

rete: Lt. = a net; hence, a network of veins or tubules.

reticular: adj. Lt. reticulum = small net; hence having a network.

reticulum: diminutive of Lt. rete = net; adj.- reticular.

**Retina** (REHT-ih-nah) the light-sensitive inner layer of the eye containing rod and cone cells.

retina: derivation uncertain - the innermost of the 3 layers of the eyeball.

retinaculum: Lt. = a tether; hence, a thickened band of deep fascia which retains tendons or the patella.

retract: Lt. re = back, and tractum = pulled; to pull something back, and retraction - the act of retracting.

**retro- located behind**

retro: prefix - Lt. = backwards.

retroflexion: Lt. retro = backwards, and flexion = bent; the position of being bent backwards, applied to the angulation of the body of the uterus on the cervix.

retroversion: Lt. retro = backwards, and version = turned; the position of being turned backwards, applied to the angulation of the cervix uteri on the vagina.

**rhabdo- striated striped**

**rhe- flow**

**rhin- nose**

rhinencephalon: Gk. rhinion = nostril, & enkephalos = brain; the brain tissue concerned with smell

rhombencephalon: Gk. rhombos = rhomboid, & enkephalos = brain; hence, the hind-brain: consisting of the medulla oblongata, pons and cerebellum, which enclose the rhomboid fossa (floor of 4th ventricle).

**rhod- red**

rhomboid: adj. Gk. rhombus = a figure with 4 equal sides, not at right angles, the shape of a rhombus.

**Ribosome** (RYE-boh-zome) a microscopic, spherical structure w/n the cytoplasm of a cell composed of RNA and protein. It serves as an attachment site for messenger RNA during protein synthesis.

rima: Lt. = chink; hence, e.g., rima palpebrarum = the chink b/n the free edges of the eyelids.

risorius: Lt. risor = scoffer; risorius is the "smiling" muscle drawing the corners of the mouth laterally.

**Rod cell** a photoreceptor cell in the retina of the eye that detects very low levels of light.

rostral: adj. Lt. rostrum = beak, implying nearness to the corpus callosum.

rostrum: Lt. beak, a platform or beak-like structure; adj.- rostral.

rotate: Lt. rota = wheel; hence, to turn, and rotation, the act of turning.

rotundum: Lt. rotnudus = round.

### rub- red

rubro: prefix, Lt. rubrum = red.

ruga: Lt. = a wrinkle.

rugose: adj. Lt. ruga = a wrinkle, hence, wrinkled.



# A S

sac: Lt. saccus = a sack.

saccule: Lt. sacculus, diminutive of saccus.

sacrum: Lt. sacer = sacred (probably considered so because of its size).

**Sagittal** (SAJ-ih-tal) a vertical plane that divides the body into right and left portions, & includes the midsagittal/median sagittal plane (dividing into equal halves) and the parasagittal plane (dividing into unequal portions).

sagittal: adj. Lt. sagitta = arrow, because the sagittal suture is notched posteriorly, like an arrow, by the lambdoid sutures.

**Salivary** (SAHL-ih-vahr-ee) **gland** one of several exocrine glands in the facial region that secrete saliva into the mouth to initiate the digestive process.

salivary: adj. Lt. saliva = spit.

## salping- tube

salpinx: Gk. = trumpet; the uterine or auditory tubes, each of which is trumpet-shaped.

saphenous: adj. Gk. saphenes = obviously visible. The saphenous veins become obvious when varicose.

**Sarcolemma** (sar'-ko-LEHM-ah) the plasma membrane covering the outer surface of a muscle fiber.

**Sarcomere** (SAR-ko-meer) a contractile microscopic subunit of striated muscle (skeletal and cardiac muscle).

**Sarcoplasm** (SAHR-ko-plahzm) the cytoplasm of a muscle fiber.

**Sarcoplasmic reticulum** (sahr'-koh-PLAHZ-mihk reh-TIHK-yew-luhm) a cellular organelle found only in muscle cells that stores calcium ions, and is similar in structure to the endoplasmic reticulum found in other cells. (see also endoplasmic reticulum).

sartorius: Lt. = tailor; sartorius muscles, when contracted produce the tailor's posture; squatting.

scalene: adj. Gk. skalenos = uneven, hence a triangle with unequal sides, a description of the scalenus anterior and scalenus medius muscles.

scaphoid: adj. Gk. skaphe = skiff, and eidos = shape or form; hence the carpal bone which is hollowed out on its distal surface for the head of the capitate; also the fossa occupied by tensor veli palatine muscle.

scapula: Gk. skapto = I dig, - because of the resemblance to a spade.

### scel- leg

### schiz- split

**Schwann cell** a type of neuroglial cell that forms myelin sheaths around axons of peripheral nerves.

**Sciatic** (SY-at-ic) nerve, largest nerve in the body lies on the ischium and is very visible hence the name- sciatic pain resulting from damage to the sciatic nerve or parts of it

sciatic: adj. Gk. ischion = hip-joint. Ischiadikos meant pertaining to the ischium or hip - later changed to ischium. (the ischium earns its name because it forms  $> 2/5$  of the acetabulum, whereas the ilium contributes  $< 2/5$ , and the pubis only  $1/5$ ). The sciatic nerve lies on the ischium.

### scirrho- hard

### sclero- hard

**Sclera** (SKLEH-raw) the posterior part of the outer, fibrous tunic covering the eyeball; the white of the eye.

sclera: Gk. skleros = hard; hence the tough, outer layer of the eyeball; adj.- scleral.

### scolio- twisted

scoliosis: Gk. skolios = crooked or curve, and -osis = condition, hence, the lateral curvature of the spine.

scrotum: possibly derived from Lt. scorteus = leather; adj.- scrotal.

**Sebaceous** (seh-BAY-shuhs) **gland** an exocrine gland located in the dermis that secretes an oily substance called sebum. It is usually associated with a hair follicle.

### second- second following

secrete: Lt. secretus = separated; hence, to produce a chemical substance by glandular activity - adj. secretory; noun, secretion.

**Secretion** (seh-KREE-shuhn) a substance produced and released by a cell that serves a useful benefit.

sella: Lt. = saddle; adj.- sellar, sella turcica = Turkish saddle.

semen: Lt. = seed; adj.- seminal (seminal vesicle).

### semi- half partial

semilunaris: adj. Lt. semi = half, and luna = moon; hence, having a half-moon shape.

**Semicircular canal** (seh'-mi-SEHR-kyoo-lawr caw-NAHL) one of three looping canals in each temporal bone that form a part of the inner ear. It contains perilymph fluid and the receptors for equilibrium.

**semimembranosus:** adj. Lt. semi = half, and membrana = membrane; hence, the hamstring muscle of which the upper half is membranous.

**Seminal vesicle** (SEHM-ih-nawl VEHS-ih-kehl) one of a pair of convoluted glands of the male reproductive system located posterior to the urinary bladder that secretes part of the semen.

**seminiferous:** Lt. semen = seed and ferre = to carry, to bear: the sperm-producing tubules in the testes.

**Seminiferous tubule** (sehm'-i-NIHF-ehr-uhs TEW-byewl) a microscopic, tightly packed tube w/n each testis where the sperm cells develop.

**semitendinosus:** adj. Lt. semi = half, and tendo = I stretch; - the hamstring muscle (the lower half is tendinous).

### seps- decay

**septum:** Lt. saeptum = fenced in; hence, a dividing fence or partition-generally of CT.

**Serosa** (sehr-O-sah) any serous membrane. (also, the outer membranous layer of a visceral organ containing blood and nerve supply as well as lymphatic drainage), similar to the capsule of an organ.

**serous:** Lt. = like serum, serum-like.

**Serous membrane** (SEHR-uhs MEHM-brane) an epithelial membrane that lines a body cavity or covers an organ, and secretes small amounts of fluid.

**serratus:** adj. Lt. = notched like the edge of a saw (serrate).

**sesamoid:** adj. Gk. sesamodes, eidos = shape or form; like grains of sesame, ie. small bone in tendon at site of friction.

**sialogram:** Gk. sialon = saliva, and gramma = a diagram; hence, a radiograph of a salivary duct.

### sicc- dry

**sigmoid:** adj. Gk. sigma, the form used at the end of a word having an S-shape; hence, S-shaped.

**sinister:** adj. Lt. = left-sided.

**Sigmoid colon** (SIHG-moyd KOH-luhn) the distal segment of the colon located b/n the descending colon & the rectum.

**Simple** (SIHM-pehl) pertaining to a single-layered arrangement of epithelial cells.

**Sinoatrial node** (sin'-oh-AY-tree-awl nohd) (**SA node**) a cluster of specialized cardiac muscle cells in the wall of the right atrium that initiate each cardiac cycle (also = the sinuatrial node, or pacemaker).

**sinistro-left**

**Sinus** (SI-nuhs) a space w/n a bone lined with mucous membrane, such as the frontal and maxillary sinuses in the head. (also, a modified BV usually vein with an enlarged lumen for blood storage and containing no or little muscle in its wall).

sinus: Lt. = a hollow or space which may contain air, venous or arterial blood, lymph or serous fluid; adj. sinusoid.

**Sinusoids** an extensive network of vessels that may be found in the liver, pancreas, spleen, and adrenal cortex, which are similar in structure to capillaries only "leakier".

**Skeletal muscle tissue** one of 3 types of muscle tissue in the body characterized by the presence of visible organized striations and under conscious control over its contraction. It attaches to bones to form the muscles of the body.

**Skull** (sk-UHL) this a term for all the bones of the head

**Small intestine** the organ of the alimentary canal located b/n the stomach and the large intestine that functions in the final digestion, filtration and absorption of nutrients.

**Smooth muscle** one of 3 types of muscle tissue in the body characterized by the lack of visible striations, with automatic and autonomic contractile function. It forms part of the walls of hollow organs and BVs.

sole: the lower surface of the foot - see soleus.

soleus: adj. Lt. solea = flatfish or sandal; soleus muscle does not enter the sole of the foot, but resembles the fish.

solitarius: Lt. = solitary, alone.

**Soma** (SOH-mah) pertaining to the body or the main part of an organ or a cell

soma: Gk. = the body.

somatic: adj. Gk. soma = the body; hence, pertaining to the body frame but not to its viscera.

**Somatic nervous system** the component of the PNS that conveys impulses associated with conscious sensory and motor activities.

somite: Gk. soma = body, hence an embryonic body segment.

**somn- sleep****spano- few scanty**

spasm: Gk. spasmos = an involuntary contraction of a muscle;

adj. - spastic, or spasmodic.

sperma: Gk. = seed or semen, adj. spermatic.



**Spermatozoa:** = sperm cells. They are the formed male gametes produced by meiosis from cells w/n the walls of seminiferous tubules of the testes. Individual spermatozoa are capable of locomotion due to the presence of a single flagellum.

**Spermatic cord** (spehr-MAH-tihk kord) a narrow bundle of tissue in the male reproductive system extending from the epididymis to the inguinal canal, consisting of the ductus deferens, cremaster muscle, BVs, lymphatics, nerves, and CT.

**sphen- wedge (sven)**

sphenoid: adj. Gk. sphen = wedge, and eidos = shape or form; hence the unpaired bone which is wedged into the base of the skull b/n the unpaired frontal and occipital.

**sphincter- tightening associated with a ring of muscle (sfinkter)**

sphincter: Gk. sphinkter = a tight binder; ie a circular muscle which closes an orifice; adj.- sphincteric.

**Spinal cord** a long, narrow organ of the CNS that extends through the vertebral canal & connects the PNS with the brain.

**Spinal nerve** one of 31 pairs of nerves that extend b/n the SC and another part of the body.

spine: Lt. spina = a thorn; a sharp process, or a lay term for the vertebral column; adj. spinous, spinal.

**spir- coiled, respiration, breath**

**sphygm- pressure, pulse**

splanchnic: adj. Gk. splanchnon = a viscus or internal organ; hence pertaining to viscera.

**Splanchocranium** (spl-ANK-noh-KRAY-nee-uhm) that part of the skull containing the facial bones. **Spleen** a soft, glandular organ that is part of the lymphatic system and is located in the upper left region of the abdomen behind the stomach.

spleen: Lt. splen = the spleen; hence; adj.- splenic (Lt. - lien).

**Spongy bone** One of 2 types of bone tissue, characterized by the presence of spaces filled with red marrow b/n thin bone spicules called trabeculae.

squama: Lt. = a scale (as of fish or reptile); adj.- squamous.

**Squamous** (SKWA-muhs) flat, scalelike, square-like.

squamous: adj. Lt. squama = a scale (as of fish or reptile), hence scale-like.

stapes: Lt. = stirrup; adj.- stapedial, stapedius.

**stas- stopped**

**Static equilibrium** the sensation of body position.

**steat- fat**

stellate: adj. Lt. stella = star.

**steno- narrow**

**stereo- three dimension depth firm solid**

stereocilia: Gk. stereos = solid, and cilium = eyelash, hence non-motile microvilli.

sternebra: Gk. sternon = chest or breast, and -bra = from vertebra, the segments of the sternum (these fuse in later life).

sternum: Gk. sternon = chest or breast; adj. sternal.

**steth- chest**

stoma: Gk. = a mouth.

**Stomach** (STOH-muhk) a large, hollow organ in the alimentary canal located b/n the oesophagus and small intestine that plays a prominent role in digestion.

stomach: Gk. stomachos = gullet or oesophagus, later applied to the wider part of the digestive tract just below the diaphragm; adj. - gastric.

**Stomach mucosa** the innermost layer of the stomach wall. It is a mucous membrane that contains numerous gastric glands embedded throughout.

**strab- squint**

strabismus: Gk. strabismos = squinting; hence, inability to focus both eyes on a given point.

**Stratified** (STRAH-tif-ide) pertaining to a multiple-layered arrangement of epithelial cells.

stratum: Lt. = a covering sheet, or layer.

**strepto- twisted**

**stri- striped line streak (stry-)**

stria: Lt. = furrow, applied to a streak or stripe.

striatum: adj. Lt. striatus = furrowed; hence, corpus striatum, the caudate and lentiform nuclei connected by grey strands which traverse the internal capsule, giving the strands a striated appearance.

**Stroma** (STROH-mah) supporting bed of cells, CT or matrix upon which or w/n which the structures are placed eg the parenchyma

stroma: Gk. = bed or mattress, the supporting framework of an organ, distinct from its parenchyma.

**stroph- twisted**

styloid: adj. Gk. stylos = an instrument for writing, and eidos = shape or form; a pencil-like structure.

A **sub- under less than partial**

B subclavian: Lt. sub = under or below, and clavis = a key, hence  
under the clavicle.

C **Subcutaneous layer** (suhb'-kyoo-TA-nee-uhs LA-yehr) the layer of  
D loose CT and adipose tissue deep to the dermis of the skin. (also =  
hypodermis, and superficial fascia).

E subiculum: diminutive of Lt. subix = a support.

sublimis: Lt. = superficial.

F **Sublingual** (suhb'-LING-wal) **glands** a pair of salivary glands located  
G in the floor of the mouth deep to the mucous membrane.

H **Submandibular** (sub'-man-DIB-yoo-lah) **glands** a pair of salivary  
I glands located along the inner surface of the jaw in the floor of the  
mouth. (also = submaxillary glands).

J **Submucosa** (sub'-myoo-KOH-sah) a layer of CT located external to a  
mucous membrane.

K substantia: Lt. = a substance.

L succus: Lt. = juice (succus entericus, the secretion of the small  
intestine).

M **sud- sweat**

N **Sudoriferous** (syoo'-dor-IF-er-us) **gland** an exocrine gland located in  
the skin that secretes sweat. (also = sweat gland).

O sudomotor: Lt. sudor = sweat, and movere = to move, hence  
stimulating the sweat glands.

P **suf- under**

sulcus: Lt. = a groove.

Q **super- over**

R superciliary: adj. Lt. super = above, and cilia = eyelid; hence,  
pertaining to the eyebrow.

S superficial: adj. Lt. super = above, and facies = surface; hence,  
nearer the surface.

T **Superficial** (soo'-pehr-FIHS-ahl) A directional term indicating the  
U location of a part that is toward or nearer to the body surface relative  
to another ≠ deep.

V **Superior** (soo-PEER-ee-or) A directional term indicating the location  
W of a part that is nearer to the head region than another. Also called  
craniad or cephalad.

X superior: adj. comparative of Lt. superus = above.

Y **supinus- face up**

Z supination: the act of turning the back of the hand to face  
posteriorly; verb - supinate ≠ pronate.

supine: adj.Lt. supinus, recumbent on the back, also, the hand position of the dorsum posteriorly.

### supra- above over

supra: Lt. prefix = superior to.

suprarenal: Lt. supra = above, over, superior to, and ren = the kidney.

sural: adj.Lt. sura = the calf.

sustentaculum: Lt. = a support, which sustains; e.g.

sustentaculum tali - the ledge on the calcaneus supporting part of the talus.

**Suture** (SEW-tjah) the saw-like edge of a cranial bone that serves as a joint b/n bones of the skull ; the stitching of 2 opposing edges of tissue.

suture: Lt. sutura = a seam; the fibrous joints b/n cranial bones.

**Sweat gland** an exocrine gland located in the skin that secretes sweat. (also = sudoriferous gland).

### sym- together union association

sympathetic: Gk. syn = with, and pathos = feeling; hence, the peripheral part of the ANS arising from the thoracolumbar region of the spinal cord and communicates with other nerves.

**Sympathetic division** (simp'-ah-THEH-tihk dih-VIH-zhuhn) a division of the ANS that functions mainly in stimulating emergency responses (fight or flight).

symphysis: Gk. syn = with, and physis = growth; a joint - bone + **fibrocartilage** + bone generally used for joints in the median plane, often fuse later in life (the symphysis of the mandible is exceptional, the 2 halves fusing before 2 yo).

### syn- together, union, association

**Synapse** (sihn-AHPS) the junction b/n the axon of one neuron & the dendrite or cell body of another neuron.

synapse: Gk. syn = with, and aptein = to join; the zone an impulse passes from one neuron to another.

**Synaptic cleft** (sihn-AHP-tihk clehft) a part of the synapse that consists of the space b/n neurons or neuron and muscle fiber across which the neurotransmitter must diffuse.

**Synaptic end bulb** the expanded distal end of a neuron's axon containing numerous synaptic vesicles & mitochondria.

**Synaptic terminals** the terminal ends of axons where the synapse begins b/n adjacent neurons.

**Synaptic vesicles** microscopic sacs w/n synaptic end bulbs of axons that store neurotransmitter.

synchondrosis: Gk. syn = with, and chondros = cartilage; a joint - bone + **cartilage** + bone

syncytium: Gk. syn = with, and kytos = cell, a multinucleate mass of protoplasm formed by cells merging as in Giant cells and skeletal muscle cells.

syndesmosis: Gk. syn = with, and desmos = a band; joint - bone + **fibrous tissue** + bone

syndrome: Gk. syn = with, and dromos = running; ie. a group of signs and symptoms, characteristic of a certain pathology.

synergist: Gk. syn = with, and ergon = work; a muscle cooperating with others to produce a certain movement.

synovia: Gk. syn = with, & ovum = egg; the fluid in freely moving joints which resembles egg-white adj. synovial

**Synovial fluid** the liquid secretion of epithelial cells in the synovial membrane lining a synovial (freely moving) joint, which serves as a lubricant and shock absorber.

**Synovial joint** (sihn-OH-vee-awl joynt) a type of joint characterized by the presence of a membrane-lined cavity, called the synovial cavity, b/n opposing bones.

systole: Gk. = contraction; hence the contraction of cardiac muscle.



# T

**tabe-** wasting

**tact-** touch

taenia: Lt. = a tape or ribbon. AS tenia (TEEN-ih-ah)

**tal-** ankle

talus: Lt. = ankle-bone; hence, the tortoise-shaped tarsal of the talocrural (ankle) joint.

**tars-** eyelid, edge of foot

tarsus: Gk. tarsos = a flat surface; the flat part of the foot, later, the bones of the foot behind the metatarsals, adj. tarsal.

**Taste buds** special sensory organs located primarily on the surface of the tongue & usually embedded within papillae. They contain chemoreceptors, providing the sense of taste or gustation.

**taut-** same

**tect-** covering

tectorial: adj. Lt. tectorium = an overlying surface like plaster, a covering or roof.

**Tectorial membrane** (tehK-TOR-ee-awl MEHM-bran) a thin membrane in the inner ear that projects over the receptor hair cells of the organ of Corti.

tectum: Lt. = roof; hence the roof of the midbrain.

**teg-** covering

tegmen: Lt. = covering (c.f. integument = the skin).

tegmen: Lt. = covering.

tela: Lt. = a web; e.g., a fold of pia mater containing a choroid plexus.

temporal: Lt. tempus = time; the temporal area of the scalp, where grey hair first appears

**Tendon** (TEHN-dohn) a band of dense CT that extends from the muscle to attach to a bone.

tendon: Lt. tendo = I stretch out.

tenia: Lt. = a tape or ribbon. AS taenia

tensor: Lt. tensus = stretched; hence a muscle which produces tension.

tentorium: Lt. = tent; tentorium cerebelli.

**ter-** three

teres: Lt. = rounded, cylindrical.

testicle: Lt. testiculus = the male gonad (see testis).

- A Testis** (TEHS-tihz) one of a pair of male gonads (sex glands) located w/n the scrotum that produces sperm cells and testosterone. pl. - testes.
- C** testis: Lt. testiculus = the male gonad. Lt. testis = a witness.  
**D** Under Roman law, no man could bear witness (*testify*) unless he possessed both testes. pl. - testes.
- E Testosterone** a steroidal hormone secreted by interstitial cells (cells of Leydig) located w/n the testes. It promotes the development of male secondary sex characteristics & the development of spermatozoa.
- G** **terti- third (ter-shi-)**  
**H** tetralogy: Gk. tetra = four, & logos = discourse, combination of 4 elements eg, symptoms or defects.  
**I** thalamus: Gk. = bedroom - the posterior end of the thalamus is rounded and named pulvinar = cushion.  
**J** theca: Gk. theka = a capsule, sheath.  
**K** thenar: Gk. = palm of hand; hence, the ball of the thumb.
- L Thoracic cavity** (tho-RAHS-ihk CAHV-ih-tee) the part of the anterior (ventral) body cavity located superior to the diaphragm, which contains the heart, lungs, & mediastinum.
- M** thorax: Gk. = the chest, adj.thoracic.
- N Threshold stimulus** (THRESH-hold STIH-myoo-luhs) a change in environment
- O** thrombus: Gk. = a clot.
- P Thrombocyte** (THROHM-bo-sit) the formed elements in blood that play a prominent role in blood clotting. (also = platelets).
- Q Thrombus** (THROHM-buhs) a blood clot that has formed in a vein or artery.
- R** thymus: Gk. = sweetbread.
- S** **thym- thymus, mind**
- T Thymus** (THI-muhs) **gland** a glandular lymphatic organ located superior to the heart that produces T lymphocytes during early childhood, and degenerates by adulthood.
- U** thyroid: Gk. thyreos = shield, and eidos = shape or form; shaped like a shield (shields the glottis).
- V** **Thyroid cartilage** (THI-royd CAHR-tih-lih) the largest piece of hyaline cartilage of the larynx. (also = the Adam's apple).
- W** **Thyroid gland** (THI-royd) an endocrine gland located on the anterior side of the neck that secretes hormones involved in growth, metabolism, and maintaining calcium levels in the blood.
- Y** **tibia: Lt. = the shin-bone, adj.tibial.**
- Z**

**Tissue** (TIH-shoo) a group of similar cells that combine to form a common function.

**Tongue** (tuhng) the muscular organ of the digestive system that is anchored to the floor of the mouth and wall of the pharynx. It plays major roles in swallowing and speech formation.

**Tonsil** (TOHN-sihl) a small organ of the lymphatic system that consists of an aggregation of fixed lymphocytes & CT embedded in a mucous membrane. There are 3 pairs (pharyngeal, palatine & lingual), all of which play a role in the immune response.

tonsil: Lt. tonsilla = tonsil (e.g., palat.e tonsil).

**Tooth** a bony structure projecting from the maxilla or mandible that provides for the grinding, or mechanical digestion, of food particles.

**top- on the surface , to place**

**tors- twisted bulge**

torus: Lt. = a bulge.

**Trabecula** (traw-BEHK-yoo-lar) a thin plate of bone within spongy bone tissue. (also = a band of supportive CT extending to the interior of an organ from its outer wall as in the spleen or the breast).

trabecula: diminutive of Lt. trabs = a beam; hence the supporting fibres of a structure.

**Trachea** (TRA-kee-aw) an organ of the respiratory system consisting of a long tube supported by semi-rings of cartilage extending from the pharynx to the bronchi.

trachea: Gk. tracheia = rough, referring to its corrugations.

tract: Lt. tractus = an elongated strand of wool or dough; hence a pathway for nerve fibres.

tragus: Lt. = goat, because of the beard-like tuft of hair on its internal aspect.

**trans- across**

**Transitional epithelium** a type of epithelial tissue characterized by its ability to expand in size and recoil, giving the organs it lines a feature of elasticity. Transitional epithelium forms the inner lining of the urinary bladder and ureters

transverse: perpendicular to the long axis = horizontal.

**Transverse colon** the segment of the colon that extends across the body from its union with the ascending colon (Left) to its union with the descending colon (Left).

trapezium: Gk. trapezion = a trapezium - a quadrilateral with 2 sides parallel.

trapezius: Gk. trapezion = a trapezium - a quadrilateral with 2



sides parallel; hence, trapezius muscle, the diamond-shape of both trapezii muscles together.

trapezoid: Gk. trapezion = a trapezium - a quadrilateral with 2 parallel sides, resembling a trapezium.

### tri- three (try)

**Triad** when pertaining to the liver, a triad is a combination of 3 structures that can be observed in a cross-sectional microscopic view. They include branches of the hepatic portal vein, hepatic artery, and bile duct. When pertaining to skeletal muscle, a triad refers to a T tubule and two cisternae of the sarcoplasmic reticulum.

triad: from Lt. tres = 3.

triceps: Lt. tres = 3, and caput = head; hence a 3-headed muscle.

trigeminal: Lt. trigeminus = triplets; hence, cranial nerve V, with 3 large divisions.

trigone: Lt. trigonum = a triangle.

triquetral: Lt. triquetrus = 3-cornered.

triticea: Lt. triticum = a grain of wheat; hence, the tiny cartilage in the lateral thyrohyoid ligament.

### trocho- round

trochanter: Gk. = a runner; the bony landmark, the greater trochanter, moves obviously in running.

trochlea: Gk. trochilia = a pulley.

### trop- turn change

### troph- nutrition

truncus: Lt. = trunk (of a tree).

tube: origin unknown

tubule: little tube

tuber: Lt. tuber = a swelling or lump. (see protuberance)

**Tubercle** (TEW-ber-cl) a small process or bump generally on a bone.

tubercle: Lt. diminutive of tuber, a small prominence, usually bony (smaller than a tuberosity).

tuberculum: Lt. diminutive of tuber, a small prominence, usually bony.

tuberosity: Lt. tuber = a swelling or lump, usually large and rough (larger than a tubercle).

tunica: Lt. = shirt; hence a covering.

**Tunica externa** (TEW-nih-kah eks-TEHRN-ah) the outermost layer of a tubular BV wall. (also = the tunica adventitia and the serosa, it is composed of CT and in larger vessels smaller BVs the vasa vasorum)

**Tunica intima** (TEW-nih-kah IHN-tih-mah) the innermost, or deepest, layer of a tubular BV. (also = the tunica interna, it is composed of a layer of simple squamous epithelium (endothelium) and a BM of CT.

**Tunica media** (TEW-nih-kah ME-de-ah) the middle layer forming the wall of a tubular BV. The tunica media is composed of smooth muscle tissue, and may contain elastic fibers.

turbinate: Lt. turbo = a child's (spinning) top; hence shaped like a top. An old term for the nasal conchi.

**Tympanic membrane** (tihm-PAHN-ihk MEHM-bran) a thin membrane b/n the external auditory canal & the tympanic cavity, separating the external ear from the middle ear. (also = the eardrum).

tympanum: Lt. = a drum.



# A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

ulna: Lt. = elbow or arm; hence, the medial bone of the forearm.

## **ultra- beyond in excess**

umbilicus: Lt. = the navel.

umbo: Lt. = the boss on the centre of a shield, umbo of tympanic membrane.

uncinate: Lt. uncinatus = hooked.

uncus: Lt. = hook; adj.- uncinata.

## **ungu- nails**

ungual: pertaining to Lt. unguis = finger-nail.

## **uni- first one**

urachus: Gk. ouron = urine, and echein = to hold, the canal connecting the foetal bladder and umbilicus.

**Ureter** (YEW-reh-tehr) a long, narrow muscular tube extending from the kidney to the urinary bladder & transports urine using gravity and peristalsis.

ureter: Gk. oureter = passage from kidney to bladder.

**Urethra** (yew-REE-thrah) a tube extending from the urinary bladder to the exterior that carries urine in females and urine and semen in males.

urethra: Gk. ourethra = passage from bladder to exterior.

uterus: Lt. = womb.

utricl: diminutive of Lt. uterus = womb.

**Urinary bladder** (yew'-rih-NAR-ee BLAH-dehr) a hollow muscular organ located at the floor of the pelvic cavity that temporarily stores urine.

**Uterine tube** (YEW-tehr-ihn toob) One of 2 tubes that transport ova from the ovaries to the uterus in the female reproductive system. (also = the fallopian tubes or oviducts).

**Uterus** (YEW-tehr-uhs) a hollow muscular organ in the female reproductive system that serves as a site of embryo implantation, development and menstruation.

uvea: Lt. uva = grape. The pigmented vascular layer of the eyeball (iris, ciliary body and choroid).

uvula: diminutive of Lt. uva = grape.

# V

**Vagina** (vaj-EYE-nah) a tubular, muscular organ of the female reproductive system extending b/n the vulva & the uterus.

vagina: Lt. = sheath; hence, invagination is the acquisition of a sheath by pushing inwards into a membrane, and evagination is similar but produced by pushing outwards.

vagus: Lt. = wandering; hence, cranial nerve X, which leaves the head and neck to traverse the thorax and upper part of the abdomen.

valgus: Lt. = bow-legged.

vallate: Lt. vallatus = walled; hence, the large papillae on the tongue which are depressed below the surface and surrounded by a groove which is itself bounded by a wall.

vallecula: diminutive of Lt. vallis = a fossa.

**Valve** a membranous flap composed of CT and usually lined by a layer of epithelium which directs the flow of fluid in one direction.

valve: Lt. valva = the segment of a folding-door.

valvula: diminutive of Lt. valva.

varicocoele: Lt. varix = vein and Gk. kele = tumour, hernia, a varicose condition of the veins of the pampiniform plexus.

varus: Lt. = knock-kneed.

vas: Lt. = vessel (plural = vasa).

**Vas deferens** also = the ductus deferens. It is a tube extending between the epididymis and the urethra in the male that conveys spermatozoa during ejaculation.

**Vascular** (VAHS-kyoo-lawr) Pertaining to or containing BVs.

vascular: Lt. vasculum, diminutive of vas; hence, pertaining to BVs.

**Vein** (vayn) a BV that transports blood from body tissues to the heart.

vein: Lt. vena; adj.- venous. (veen-us)

velum: Lt. = curtain; veli = of a curtain.

## ven- vein

venter: Lt. = belly; hence, ventral, pertaining to the belly side.

**Ventral** (VEN-tral) a directional term describing the location of a part nearer to the anterior or front side of the body relative to another. (also = anterior).

**Ventral root** the motor branch of a spinal nerve that connects with the SC.

**Ventricle** (VEN-trih-kuhl) one of the 2 inferior, highly muscular chambers of the heart that push blood into major arteries during their contraction.

ventricle: diminutive of Lt. venter = a small belly.

**Venule** (VEN-yewl) a small vein that collects deoxygenated blood from a capillary network and conveys it to a larger vein.

vermiform: Lt. vermis = a worm, and forma = shape; hence, worm-shaped.

**Vermiform appendix** (VEHR-mih-form aw-PEHN-dihks) a small, closed-end tube extending from the caecum of the large intestine.

**Vermis** (VEHR-mihs) the central constricted part of the cerebellum that separates the 2 cerebellar hemispheres.

vermis: Lt. = worm; hence, the segmented median part of the cerebellum.

vertebra: Lt. verto = I turn; one of the movable bones of the VC.

**Vertebral canal** (VEHR-teh-brahl kah-NAHL) a cavity extending through the vertebral column that is formed by the vertebral foramina of each vertebra, through which extends the SC.

**Vertebral column** The skeleton of the back that is composed of 26 vertebrae and associated tissues. (also = the backbone, spine, or spinal column).

vertex: Lt. = summit; hence the highest point on the skull.

vertical: perpendicular (at a right angle) to the horizontal.

**vesic- to do with the bladder**

vesica: Lt. = bladder, adj.- vesical.

**Vesicle** (VEHS-ih-kuhl) a small sac containing a fluid. In the cell, it is a membranous sac w/n the cytoplasm which contains cellular products or waste materials.

vesicle: diminutive of Lt. vesica = bladder, hence a little bladder.

vesicula: diminutive of Lt. vesica = bladder; seminal vesicle.

**Vestibular membrane** (vehs-TIHB-yew-lahr MEHM-brayn) a thin membrane inside the membranous labyrinth of the inner ear.

**Vestibule** (VEHS-tih-byewl) a small space that opens into a larger cavity or canal. A vestibule is found in the inner ear, mouth, nose, and vagina.

vestibule: Lt. vestibulum = entrance hall.

vibrissa: Lt. vibrare = to vibrate; hence, the hairs in the nasal vestibule which vibrate in the air.

**Villus** (VIHL-luhs) a small, fingerlike projection of the small intestinal wall containing CT, BVs, and a lymphatic vessel, and which functions in the absorption of nutrients. pl. - villi.

villus: Lt. a hair; hence, a vascular, hair-like process, usually projecting from a mucous surface.

vincula: Lt. = fetters (sing. - vinculum); delicate vascular synovial bands passing to the digital tendons.

**Visceral** (VIHS-er-ahl) pertaining to the internal components (mainly the organs) of a body cavity; pertaining to the outer surface of an internal organ  $\neq$  parietal.

visceral: adj. Lt. viscus = an internal organ.

**Visceral peritoneum** (VIHS-er-ahl per'-ih-toh-NEE-uhm) a serous membrane covering the surfaces of abdominal organs.

**Visceral pleura** (VIHS-er-ahl PLEW-rah) a serous membrane covering the outer surface of each lung.

viscus: Lt. = an internal organ, plural - viscera, adj.- visceral.

vital: Lt. vita = life.

vitelline: Lt. vitellus = yolk.

vitreous: Lt. vitreus = glassy.

**Vitreous humor** (VIH-tree-uhs HYEW-mahr) a mass of gelatinous material located w/n the eyeball in the posterior cavity located b/n the lens and the retina. (also = vitreous body).

**vivi- alive**

vocal: adj. Lt. vox = voice.

volar: pertaining to the palm or the sole of the foot

**volv- turn**

vomer: Lt. = plough-share; hence, the bone of the nasal septum which is split in two at its upper edge.

vulva: Lt. = the external female genitalia.



# A W

B

C **White matter** a type of NT composed mainly of the myelinated axons of neurons.

D **White pulp** one of the 2 interior areas of the spleen (see red pulp).  
E White pulp is composed of lymphocytes, monocytes and macrophages  
F suspended on a stroma of reticular fibers. It provides immunological and phagocytic functions in the spleen.

# G X

H

I **xanth- yellow**

J **xen- different**

K **xero- dry**

xiphoid: Gk. xiphos = a sword, and eidos = shape or form; hence, sword-shaped.

L

# M Y

N

O **Yellow marrow** a collection of fat storage (adipose) & other tissues found w/n the medullary cavities of bones.

P

# Q Z

R

S **Zona** (ZOH-nah) an area smaller than a region in an organ as in the adrenal gland

zona: Lt. = a belt; hence, a circular band.

T zonule: diminutive of zona.

U **zyg- yoke (z-eye-g)**

V zygoma: Gk. zygon = yoke; hence, the bone joining the maxillary, frontal, temporal & sphenoid bones.

zygomatic: adj.Gk. zygon = yoke; the bone joining the maxillary,

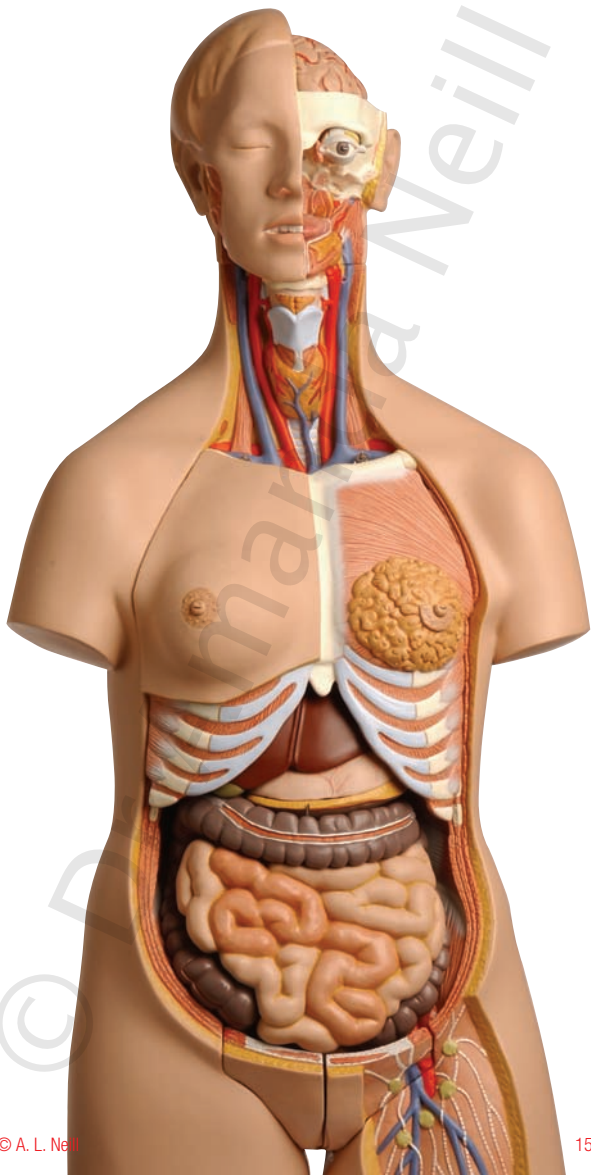
W

X

Y

Z

## Disassembling - Taking the Body Apart





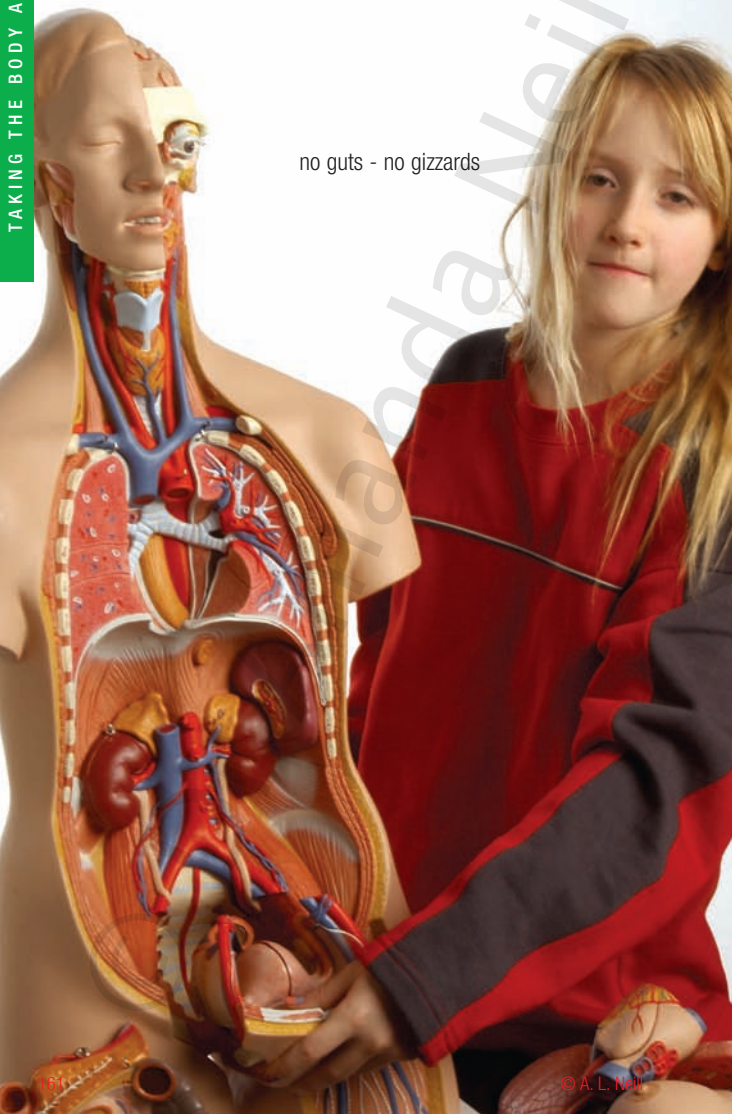
beginning with the chest



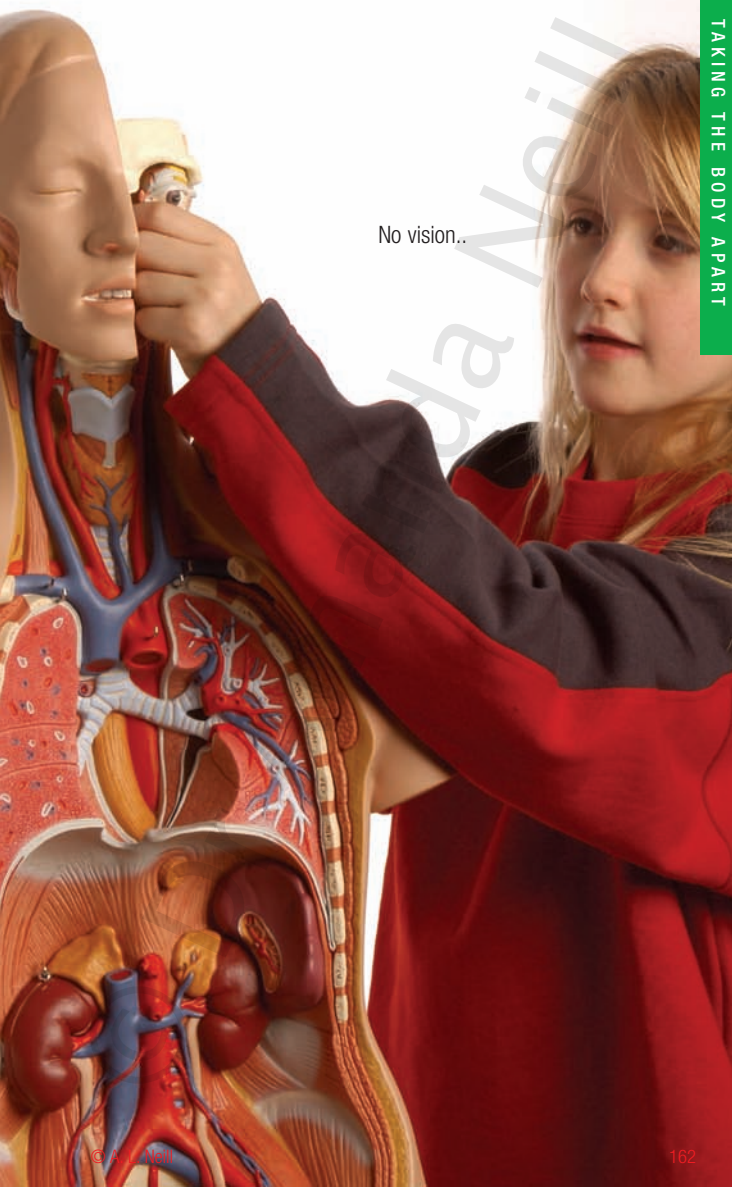
cardiac catastrophe

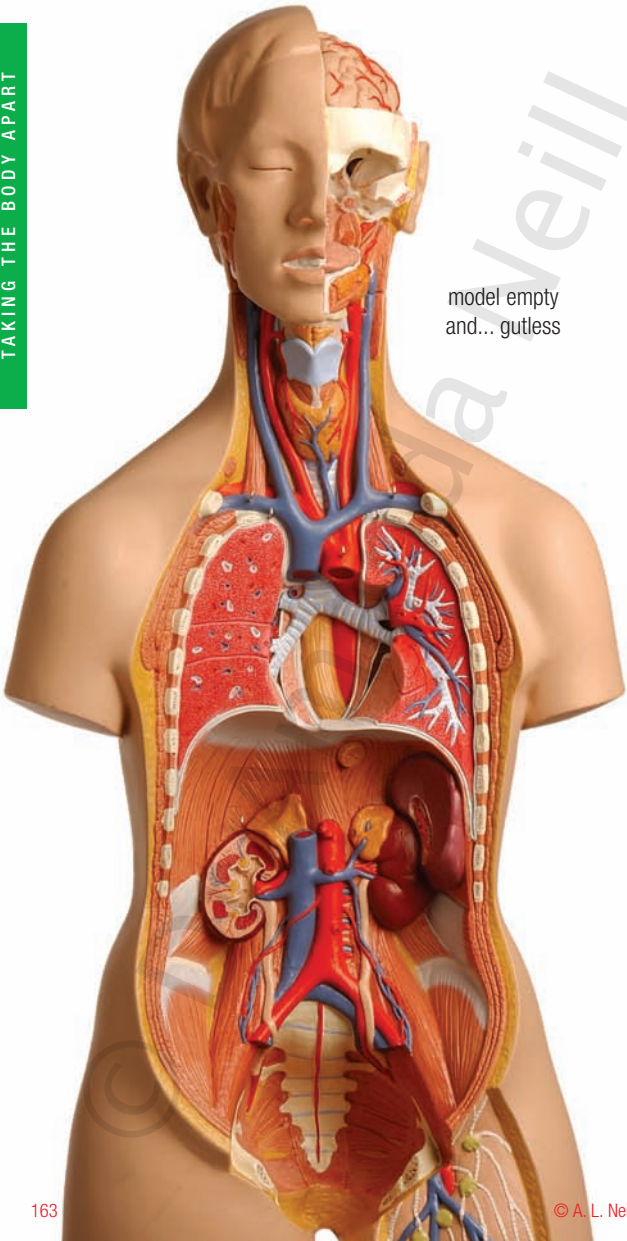


no guts - no gizzards



No vision..

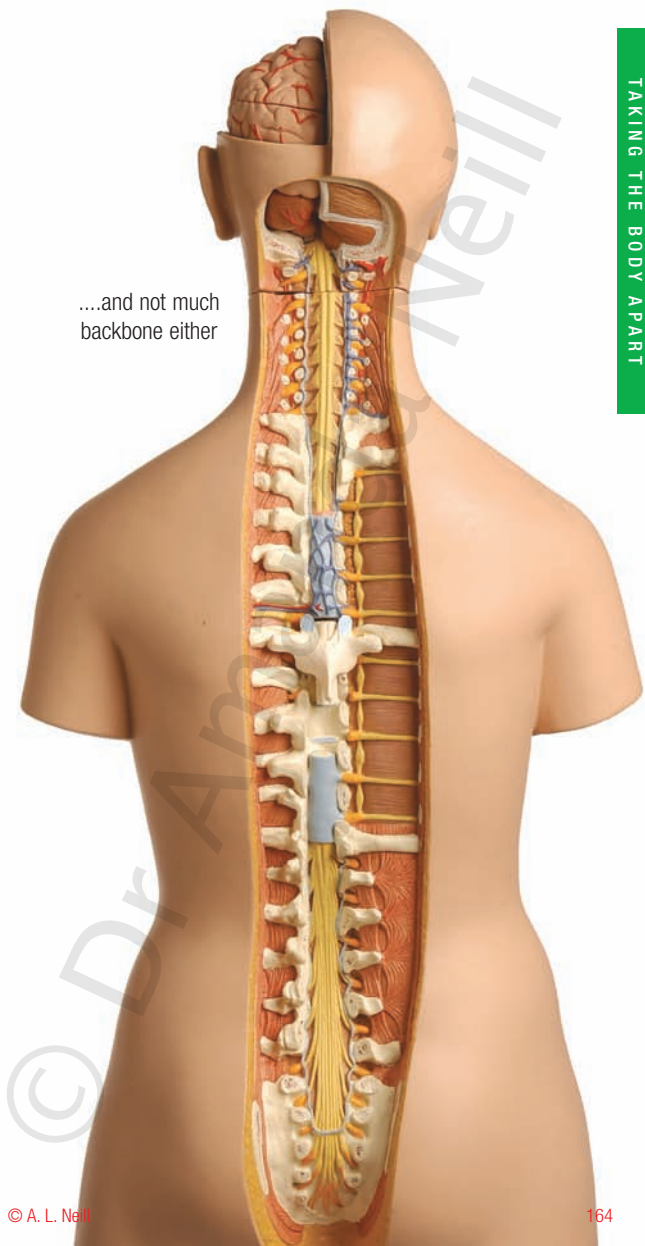




model empty  
and... gutless



....and not much  
backbone either



Anatomy - it's a no-Brainer !!



## Guide to Surface Anatomy and Surface Markers

### HORIZONTAL

- C1 = the Hard palate
- C2 = free margin of the upper teeth
- C2/3 = Hyoid bone
- C4 = upper level of the Thyroid cartilage
- C6 = Cricoid cartilage
- T1 = vertebra prominens
- T7 = Thoracic plane
- T9/10 = Sterno-Xiphoid plane
- L1 = Transpyloric plane
- L3 = Subcostal plane
- L3/4 = Umbilical plane
- L5 = intertubercular plane

### VERTICAL

- Lateral vertical line = through the lateral extremity of the 9th costal cartilage.
- Median vertical plane / Sagittal plane = through the centre of the body and vertebral column
- Midclavicular line = through the middle of the clavicle

### INTERSECTION POINTS

- Lateral vertical lines + Transpyloric plane = Lateral central points
- Median line + L1 = central point

**9 ABDOMINAL REGIONS** -intersection of the lateral vertical planes and the transpyloric and the intertubercular planes

Right Hypochondriac	Epigastric	Left Hypochondriac
Right Lumbar	Umbilical	Left Lumbar
Right Iliac	Hypogastric	Left Iliac

For more details see **The A to Z of Surface Anatomy.**



## Guide to Anatomical Planes and Relations

This is the anatomical position.

**A**= Anterior Aspect from the front Posterior Aspect from the back used interchangeably with ventral and dorsal respectively

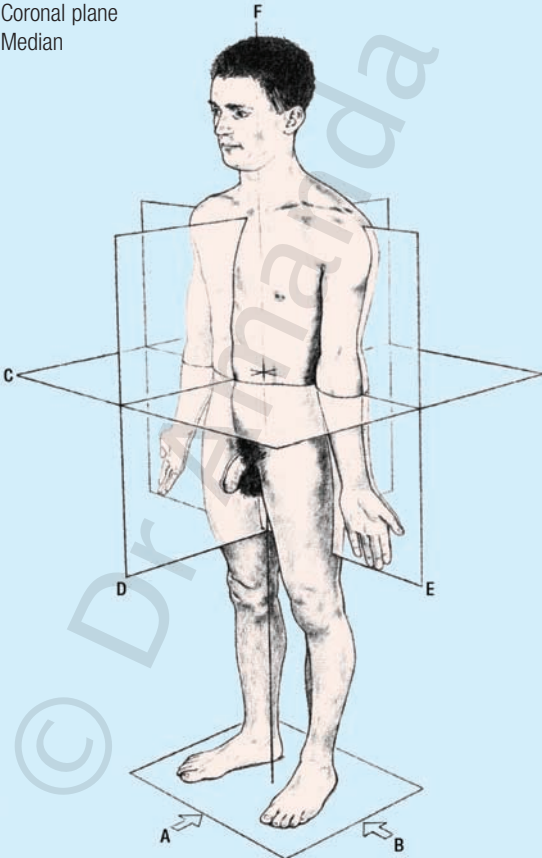
**B**= Lateral Aspect from either side

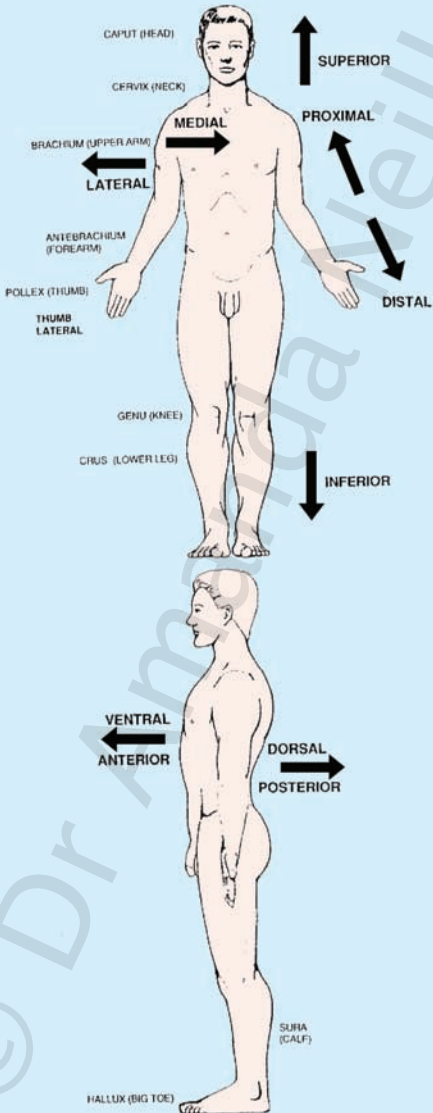
**C**= Transverse / Horizontal plane

**D**= Midsagittal plane = Median plane; trunk moving away from this plane = lateral flexion or lateral movement moving into this plane = medial movement; limbs moving away from this direction = abduction; limbs moving closer to this plane = adduction

**E**= Coronal plane

**F**= Median





## Guide to Anatomical Layers

**SKIN = EPIDERMIS + DERMIS**

**EPIDERMIS** - consisting of several layers of epithelial cells, which slough off and are replaced b/n 1-7 days - contains all the specialities of the skin: hair, nails sweat glands etc. sitting on supportive layer the basement membrane BM. **- burns or wounds to this level may be completely healed without scar formation**

**DERMIS** - consisting of connective tissue supplying the epidermis with nerve and blood supply tissue is not replaced except on a need basis, fairly stable - capable of repair/regeneration contraction (reduction of wound size) and scar formation. **- burns or wounds to this level will be detectable and are from tissue replacement not regeneration - scars will not have the properties or the features of the epidermis.**

General properties of the SKIN	THIN / MOBILE REGENERATES / REPAIRS
Exceptions PALMS / SOLES	thick skin
SHIN / CHEST	directly over bone
EARS / NOSE	directly over cartilage

**SUPERFICIAL FASCIA = LOOSE CONNECTIVE TISSUE + FAT  
(± Skeletal muscle)**

Loose CONNECTIVE TISSUE (CT) + FAT + Skeletal muscle  
Not arranged as specific layers - very variable thickness females >males

**Gives the intrinsic shape of the body ie main deposit of fat determines the FIGURE Allows for facial expressions.**

Networks of Blood Vessels (BV) + Nerves (N) + Lymphatics spread throughout the area.

**This is the point of mobility of the skin**

The point of determining the looseness or tightness of the tissue

**This is the plane used by the plastic surgeons.****Wounds to this area will not alter the function of the tissue underneath. (unless there is excessive contraction).**

There may be changed appearance.

There should not in the long term alteration in sensation.

**DEEP FASCIA = CONNECTIVE TISSUE + NEUROVASCULAR TISSUE**

Defined anatomical layer - Easily separates from the tissue above.  
Layers of varying thicknesses and strengths. Acts as a conduit for the Blood and Nerve supply to the deep tissues particularly the skeletal muscle tightly bound over muscle / anchor for intermuscular septa  
CT + BV + N + Lymphatics

**MUSCLE & BONE - limbs / appendicular skeleton - VISCERA -  
Cranium, Thorax, Abdomen and Pelvis / axial skeleton****Guide to Organ Weights and Measurements**

Organ	Normal Adult Range grams	% of Total Body Weight
<b>Adrenals</b>	12-20 /per gland	-
<b>Brain</b>	1250-1500	2.2
<b>Heart</b>	225-375	0.5
<b>Kidneys</b>	120-200 /per kidney	0.5
<b>Liver</b>	1,500-1,800	2.7
<b>Lungs</b>	250-500 /per lung	1.5
<b>Spleen</b>	100-250..(may be >800 if exposed to a parasite eg malaria)	0.2
<b>Thyroid</b>	15-40 ..(may be 80 in a "normal" goiter)	-

for more details please see **The A to Z of Organ Anatomy**

# Guide to Anatomical Descriptions

## How to describe features in Anatomy Systematically

### Joints

- classify their type -... fibrous / cartilaginous / synovial
- name the bones involved -... describe their shapes / and articular coverings
- name the ligaments involved -... capsule / capsular thickenings / accessory / intracapsular
- name other intracapsular structures - synovial membrane / discs / tendons / fat pads / bones
- describe functional aspects -... movements (list muscles involved)  
stability (list ligaments, bones and relevant muscles) relate the joint to the line of weight
- describe their blood supply
- describe their nerve supply
- list the surrounding bursae
- list their relations -... ....superior / inferior / anterior / posterior / laterally / medially
- describe any particular radiological feature including CT scan

### Organs

- define the organ
- describe the general outline -... shape / size (inc weight) / colour / surfaces (including impressions) / consistency / location (including orientation)
- list any functional aspects -... endocrine / exocrine / autonomic / immunological / physiological / structural / psychological
- describe the blood supply
- describe the nerve supply
- describe the lymphatic drainage
- list the relations -... superior / inferior / anterior / posterior / laterally / medially
- describe the Histology and Embryology
- describe any particular radiological feature including CT scan

### Vessels and Nerves

- list in order - origin/course/termination/relations and branches

### Muscles

- describe their attachments
- describe their actions
- describe their blood supply
- describe their nerve supply
- list any unusual features

for more details see

**The A to Z of Basic Anatomical Concepts and Anatomical Mapping.**

## Guide to Degrees, Diplomas, Postnominals and other Qualifications, Specifically Medical Qualifications.

### STYLE GUIDE

- 1 full stops should not be used in abbreviations of degrees or other qualifications
- 2 use either a full or shortened term but not a mixture of both order of qualifications is:
  - i national and royal honours (AO, AM, etc.)
  - ii Degrees, Diplomas and then Certificates in conferring order
  - iii Fellowships before Memberships
  - iv parliamentary designations last
- 3 do not place a comma b/n the first postnominal and the person's name, and only use commas b/n different postnominals not b/n several postnominals of the same type ie not b/n masters and bachelors degrees.
- 4 do not place degrees on the same line as the name only national and royal honours
- 5 higher degrees absorb lower ones if they are from the same institution.
- 6 most colleges and institutes do not have recognized abbreviations and so have their name is spelt out in full, exceptions CAE = college of advanced education; IT = institute of education; IAE = institute of advanced education.

## Abbreviations of common medical qualifications

## Abbreviation Qualification/Membership

**B** Bachelor Degree in...

A 3 year University qualification in various disciplines - increasingly degrees are taking 4 years to complete  
 Bachelor of Medicine Bachelor of Surgery \*see MBBS / MBBSCh commonly termed "medical degree"

**BM BS** Bachelor of Medical Science

**BSc** Bachelor of Science

**C** Certificate in .....

Generally a year qualification.

**D** Diploma of ...

Generally a 2 year tertiary qualification. Frequently at a tertiary college. Maybe at a postgraduate level.

Doctorate of .....

Generally a post graduate professional degree similar to a PhD but often internally awarded and may not be examined externally. Unlike a PhD standards vary from institute to institute and all Doctorates are not universally recognized as opposed to the PhD.

**DDR** Diploma of Diagnostic Radiology

**DLO** Diploma of Laryngology and Otorhinology

**DM** Doctorate of Medicine

**D0** Diploma of Ophthalmology

DPM  
DS  
DTR  
DPhil

Diploma of Psychological Medicine  
Doctorate of Science  
Diploma of Radiological Medicine  
Doctorate of Philosophy of a particular discipline

## F

Faculty of .....

Generally denoting a group of Departments with a common theme, with faculty members.

Fellowship in ....

Generally denoting a “fellowship” in a college as opposed to a “membership”.  
Fellows are awarded membership on the basis of qualifications and nominations.

FACBS  
FACD  
FACLM  
FACRM  
FFARCS  
FRACO  
FRACMA  
FRACOG  
FRACP  
FRACR  
FRANZCP  
FRC Psych  
FRC Path

Fellow in the Australian College of Biomedical Scientists  
Fellow of the Australian College of Dermatologists  
Fellow in the Australian College of Legal Medicine  
Fellow of the Australian College of Rehabilitation Medicine  
Fellow in the Faculty of Anaesthetists in the Royal College of Surgeons  
Fellow in the Australian College of Ophthalmologists FRACS Fellow in the Australian College of Surgeons  
Fellow in the Australian College of Medical Administration  
Fellow in the Australian College of Obstetricians and Gynaecologists  
Fellow in the Australian College of Physicians  
Fellow in the Australian College of Radiologists  
Fellow in the Australian and New Zealand College of Psychiatrists  
Fellow in the Royal College of Psychiatrists  
Fellow in the Royal College of Pathologists



FRCOG  
FRCPA  
FRCS

Fellow in the Royal College of Obstetrics and Gynaecology  
Fellow in the Royal College of Pathologists of Australia FRCR Fellow in the Royal College of Radiology  
Fellow in the Royal College of Surgery

Hons

Honours

Generally placed after a degree denoting either an additional time of study or an excellent result in the degree. In some universities this may be awarded automatically on completion of a degree.

M

Master of .....

Generally denoting a postgraduate degree of at least 2 years duration, which may or may not be externally examined. In some Universities this is awarded as an honorary degree e.g. Oxford.  
Medicine/Medical

Member of .....

Generally denoting membership to a college as to opposed to a fellowship

Bachelor of Medicine Bachelor of Surgery\* See **BM MS / MBBCh**

Doctor of Medicine

Master of Surgery

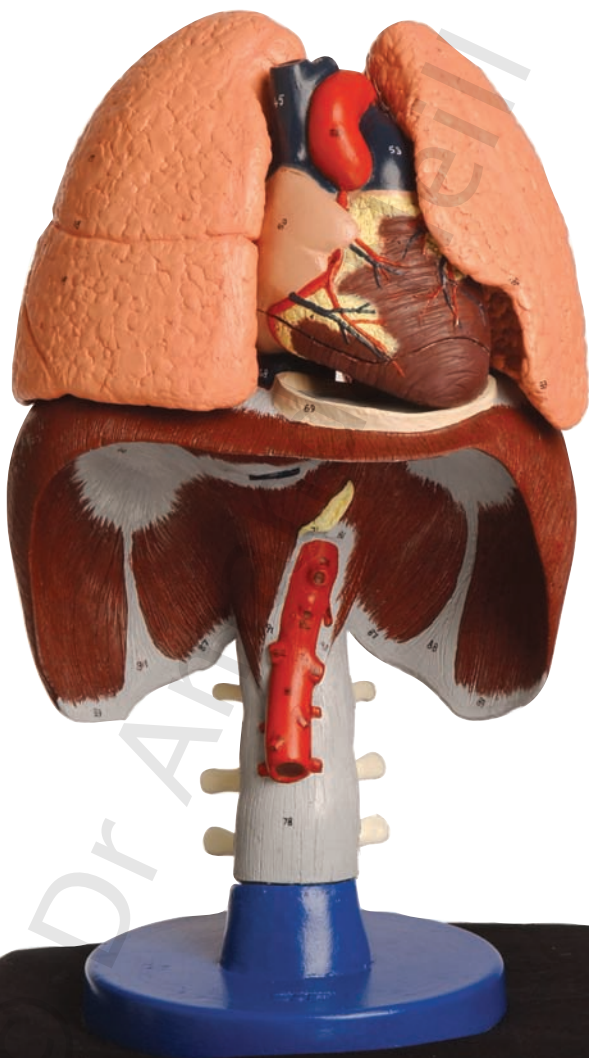
Master of Gynaecology and Obstetrics

Member of the Royal College of Physicians of the Royal Kingdom

Member of the Royal College of Obstetrics and Gynaecology

PhD

Doctor of Philosophy of a particular discipline



Model of lungs, heart and diaphragm with aorta and oesophagus entering the abdominal cavity.

## Common Abbreviations and Terminology guide and Other useful Abbreviations and terms in common academic / university use

AC-	Australian centre of ...
ACA	Australian College of ...
ACAC	Australian Centre for Astrobiology
ACANS	Centre for Advanced Computing – Algorithms & Cryptography
ACEM	Australian Centre for Ancient Numismatic Studies
ACEP	Australasian College for Emergency Medicine
ACES	Australian College of Emergency Physicians
ACLM	Australian Centre for Educational Studies
ACLS	Australasian College of Legal Medicine
ACUADS	Advanced Cardiac Life Support course
	Australian Council of University Art and Design Schools the peak body of university visual arts, crafts and design. ACUADS represents over 30 Australian University and TAFE art and design faculties, schools and departments. The Council undertakes leadership, advocacy, policy development, research and community service for the sector, and hosts an active conference and seminar program.
ACU National	Australian Catholic University National – Brisbane, Canberra, Strathfield, North Sydney, Ballarat and Melbourne
ADFA	Australian Defence Forces Academy
AF	application form
AFTRS	Australian Film Television and Radio School
AHEIA	Australian Higher Education Industrial Association
AIESEC	Association Internationale des Etudiants en Sciences Economiques et Commerciales. The world's largest student organisation. AIESEC is a global network of 50,000 members across more than 83 countries and

territories at more than 800 universities worldwide.

**AIESEC** facilitates international exchange of thousands of students and recent graduates each year. Whether in a paid traineeship or as a volunteer for a non-profit organisation.

***Nourishing mother.*** The expression is used usually in relation to a person's school, college or university.

**Alumni** - most schools and Universities have an office which keeps in contact with graduates and past students and or staff. Useful for creating a network of old students and for fund raising.

**Australian Medical Association**

**Association of Medical Doctors in Asia**

**Association for Medical Education in Europe**

**Australian Mineral Exploration Technologies**

**Academic Management Information System**

**Association of Medical Students in Asia**

**Association of Medical Schools in Europe**

**Australian Postgraduate Award**

**Academic Program Section**

**Australian Research Council**

**Australian Research Council Grant**

**Australian Research Institute in Education for Sustainability Australian Research Institute in Education for Sustainability (ARIES)** based at Macquarie University. ARIES is the first national institute devoted to the research of education for sustainability and has been established with funding from the Federal Government.

**Australian Society for Classical Studies**

**Australasian Society for Emergency Medicine**

**Australian Society of Microbiology**

Alma Mater

Alumni

**AMA**

**AMDA**

**AMEE**

**AMET**

**AMIS**

**AMSA**

**AMSE**

**APA**

**APS**

**ARC**

**ARC Grant**

**ARIES**

**ASCS**

**ASEM**

**ASM**

**ATF****Attach to file****ATF NFA****Attach to file no further action****ATN**

The Australian Technology Network (ATN) is a coalition of 5 Australian universities that share a common focus on the practical application of tertiary studies and research. The network claims they have a special strength in the way each of the member universities is focused on producing practical outcomes through their academic activity. The result is graduates and research that is closely aligned to the needs of industry and the wider society. These universities share a common background in the way they distinguished themselves as technical colleges before becoming accredited universities. The member universities of this network are: CIT - Curtin University of Technology, SAIT - South Australian Institute of Technology = University of South Australia, RMIT - Royal Melbourne Institute of Technology University, UTS - University of Technology Sydney, and QIT Queensland Institute of Technology.

**AUC**

Apple User Consortium

**AUQA**

Australian Universities' Quality Agency

**AVCC**

Australian Vice-Chancellors' Committee

**BGO**

Buildings and Grounds Office

**C4ISR**

**Command Control Communications Computers Intelligence Surveillance and Reconnaissance (US Pentagon term) covering weapons, strategic planning and force structure.**

**CA**

Card of Acceptance

**CC**

Card of Confirmation

**CCC****Constitution Credential Committee****CAG**

Computer Administrators Group

**CAL****Copyright Agency Ltd****CAMEC**

Cardiac Arrest Medical Emergency course

**CBB****National Key Centre for Biodiversity & Bioresource**

**CBR** Chemical Biological Radiation**CCS** Critical and Cultural Studies**CDM** Document Management program**CDO** Career Development Office**CDU**

**Charles Darwin University** (Formerly NTU - Northern Territory University). In 2004, Darwin's Northern Territory University merged with Alice Springs' Central College to form Charles Darwin University - a secondary and tertiary education provider with 9 campuses and centres across the Northern Territory.

**Chief Executive Officer** = Vice-Chancellor (in a University) see VC

**CFL** Centre for Flexible Learning**Chaplaincy****Chaplains**

University life can be very rich and rewarding, as well as challenging and occasionally overwhelming. The aim of the Chaplaincy Centre is to support students, staff and faculty through all the ups and downs of the University experience.

**CIC** Centre for International Communication**CIMS** Critical Incident Monitoring study in Emergency Medicine**CLA** Centre for Lasers and Applications**CLSL** Centre for Language in Social Life**CLT** Centre for Language Technology**CM** Content Management**CNMC** Campus Network Management Committee**CoACT** Centre of Australian Category Theory**COE** Centre for Open Education**COE** Council of Europe**COLIS** Collaborative Online Learning and Information Services

**Collusion**

Collusion is a form of plagiarism. It may be defined as the unauthorised and unattributed collaboration of students or others in a piece of assessed work.

**Council**

University Council

**CPD**

Centre for Professional Development

**CPME**

Standing Committee of European Doctors

**CPSU**

Community and Public Sector Union

**CQU**

Central Queensland University

**CRC**

Marsupial Cooperative Research Centre

**CRF**

Central Records File – Central Records was the preceding agency of Records and Archives Services

**CSU**

Charles Sturt University – living success

**CUDOS**

Centre for Ultrahigh-Bandwidth Devices for Optical Systems

**CUTSD Project**

Teaching and Learning of Greek and Latin in Australian Universities

**Cyber-Plagiarism**

(aka Internet Plagiarism) Use of the use the Internet to “cut and paste” information to complete assignments.

**Cyber-sloth**

Any student or academic who if they can not find information in cyberspace, do not look for it elsewhere such as in a dictionary, encyclopedia, textbook or a professional journal.

**DCM**

Document & Content Management

**DCMS**

Department of Contemporary Music Studies

**Deakin**

**Deakin University** - grow with us, **Deakin University** aims to be **Australia's most progressive University**

**Dean**

Deans provide academic leadership within a Division/Faculty. Each Division/Faculty is the guardian of programmes (degrees, diplomas and other qualifications) in which students enrol. Generally there is an administrative structure devoted to protecting the office of the Dean.

**DEETT**

**Disaster External Emergency Team Training**



<b>DEFS</b>	Division of Economic and Financial Studies
<b>Dep Reg</b>	Deputy Registrar
<b>DEST</b>	Commonwealth Department of Education, Science and Training (Formerly DETYA - Department of Education, Training and Youth Affairs)
<b>DGB</b>	Degree Granting Body
<b>Division</b>	= Faculty Some Universities have Divisions and others Faculties. Interchangeable terms.
<b>DVC</b>	Deputy Vice-Chancellor (There are 3 at Macquarie – Academic, Administration, & Research)
<b>EAP</b>	English for Academic Purposes
<b>EB</b>	Enterprise Bargaining / executive board
<b>EBL</b>	Evidence based learning
<b>ECOSOC</b>	UN Economic and Social Council
<b>E-Cheating</b>	The practice of finding and downloading papers from websites. See below - Plagiarism, Paper Mills. (aka the cheating game, e-cheating, cut and paste 101)
<b>ECU</b>	Edith Cowan University
<b>EDRM</b>	Electronic Document & Records Management
<b>EDRMS</b>	Electronic Document & Records Management System
<b>EEO</b>	Equal Employment Opportunity
<b>EEX</b>	Electronic Exchange
<b>EFT</b>	Equivalent Full Time
<b>EFTSU</b>	Equivalent Full Time Student Unit
<b>ELS</b>	Emergency Life Support (course)
<b>ELS</b>	Environmental and Life Sciences
<b>EMSA</b>	European Medical Students' Association



## Common Abbreviations and Terminology guide

**EMST** Early management of severe trauma  
**EPSA** European Pharmacy Students Association  
**EYF** European Youth Forum

**FABLS** Fluorescence Applications in Biotechnology and Life Sciences  
**FAMSA** Federation of African Med students' Association  
**FATSIL** Federation of Aboriginal & Torres Strait Islander Languages (Corporation)  
**FC** Financial Committee

**Federation** Fellowships - Australian Research Council awards designed to develop and retain Australian skills The fellowships are regarded as innovative and highly prestigious. They were established under the Australian Government's 2001 innovation action plan, Backing Australia's Ability.

**Flagship Grant** Flagship Grants are for teaching development support a small number of substantial projects contributing to strategies indicated in the Teaching and Learning Plan, which involve significant innovation or developments that will result in improvements to the quality of teaching, student learning or assessment across whole programs or sequences of units. A direct cash contribution from the Division(s)/Department(s) concerned is a requirement of funding.

**FMIS** Financial Management Information System

**FOI** Freedom of Information - FOI is the opposite of secrecy. It means the doors and files of government are open and available to the public, instead of being closed to all but a select few. Freedom of information is an important tool for the realisation of democratic goals.

**FOI Act** Freedom of Information Act - The NSW Freedom of Information Act confers on a person a legally enforceable right of access to information held in an agency's records, a right to have official information relating to them amended where it is incomplete, incorrect or misleading and a right to have made known to them the reasons for decisions that have materially affected them.

FOI Officer

Freedom of Information Officer

FORC

Field of Research Concentration

Fulbright

The Fulbright Exchange program was established in 1946 as an initiative of Senator J. William Fulbright of the USA.

Exchange

Following the end of World War II he was committed to the ideal that mutual understanding through international education and exchange would 'find ways and means of living in peace'. The Fulbright program has promoted

Program

educational and cultural exchange between America and over 140 countries throughout the world over the past 50 years. The Australian Fulbright program was established through a Binational Treaty in 1949. Since then almost 2,500 Australians and over 1,700 Americans have been awarded prestigious Fulbright scholarships to study, research and travel in the respective countries. Each year, up to 25 awards are made to Australian Post-Graduates, Post-Doctoral Fellows, Professionals and Senior Scholars. Awardees range from the traditional fields of law, engineering and science to the visual and performing arts. Applications for Australian scholarships open on June 1 and closes on August 31 each year.

GA

General Assembly

GDS

Graduate Destination Survey

GEMOC

ARC National Key Centre for Geochemical Evolution and Metallurgy of Continents

GHC

Global Health Council

Go8

The Group of Eight (go8) markets itself as the group of 'Australia's Leading Universities'. Membership of the Group of Eight (Go8) includes Adelaide University, The Australian National University, The University of Melbourne, Monash University, The University of New South Wales, The University of Queensland, The University of Sydney, and The University of Western Australia. AKA sandstone universities.

GPA

Grade Point Average

Griffith

Griffith University – excellence, equity, innovation. Get smarter

GS

General Secretariat

**GSE** Graduation School of the Environment  
**GSM** Graduate School of Management

**Gumtree University** Term attributed to *The Enterprise University: Power, Governance and Reinvention in Australia* Simon Marginson and Mark Considine - more recently up-springing and fast-growing Australian universities

**GUSTO** (study)global utilization of Streptokinase and TPA for occluded Coronary arteries  
 Head of School The role of each Head of School is to provide academic and management leadership to the School. This involves strategic planning, managing the people and resources of the School and management of teaching and research programmes, including quality assurance.

**Heads of Agreement** A non-binding document outlining the main issues relevant to a tentative partnership agreement. It is the draft used by lawyers when drawing up the contract. It serves as a guideline for both parties before any documents are ratified.

**HECS** Higher Education Contribution Scheme  
**HRIP Act** Health Records and Information Privacy Act

**HUSTLE** *First rule of the con: you can't cheat an honest man; you must find someone who wants something for nothing and give them nothing for something.*

**IADS** International Association of Dentist Students

**ICA** International Council on Archives

**ICBS** International Committee of the Blue Shield

**ICROM** International Centre for the Study of the Preservation and Restoration of Cultural Property

**ICEM** International Conference on Emergency Medicine

**ICOM** International Council on Museums

**ICOMOS** International Council on Monuments and Sites

**IDP** Education Australia Limited is a global organisation with more than 101 offices in some 55 countries.

Owned by 38 prestigious universities in Australia and representing all education sectors, IDP is an independent not-for-profit organisation.

**IELTS**

**IFLA**

**IFMSA**

**International English Language Testing System**

**International Federation of Library Associations and Institutions**

**International Federation of Medical Students Associations**

The International Federation of Medical Students' Associations (IFMSA) is an independent, non-governmental and non-political federation of medical students' associations throughout the world. In 2004-2005 IFMSA had 92 members, National Member Organizations from 88 countries on six continents and represented more than 1 million medical students worldwide.

**IM**

**IMET**

**Infometrics**

**Information Management**

**International Medical Education**

(aka Digital detective work )Instead of dusting for fingerprints, experts in infometrics, short for information forensics, sift through computer files. In today's digital world, you are leaving digital evidence or a digital trail. *You're actually leaving more of a trail when you go online than you would anywhere else.*

**IO**

**IP**

**IPPNW**

**IPSF**

**IRU Australia**

**International Office**

**Intellectual Property**

**International Physicians for the Prevention of Nuclear War**

**International Pharmacy Student Federation**

Innovative Research Universities Australia (IRU Australia) is a group of 6 universities that share a common mode of operation. The group believes that they will be able to establish research concentrations and investment across the universities. The member universities of IRU Australia are: Flinders University, Griffith University, La Trobe University, Macquarie University, Murdoch University and the University of Newcastle.

**ISAS****International society of Aeromedical Services****ITS****International Triage Scale****Ivy League**

Ivy League - (a league of universities and colleges in the north-eastern United States that have a reputation for scholastic achievement and social prestige) its 8 members (Brown, Columbia, Cornell, Dartmouth College, Harvard, Penn - University of Pennsylvania, Princeton, and Yale) are highly selective colleges for admission but originally the designation "Ivy League" only refers to their membership in a common athletic conference.

**JCU****James Cook University****JRCASE****Joint Research Centre for Advanced Systems Engineering****LC****Local Committee****LEO****Local Exchange Officer****LMO****local medical officer / locum****LO****Liaison Officer****LOME****Local Officer for Medical Education****LORA****Local Officer of Reproductive Health & AIDS****LORE****Local Officer on Research Exchange****LORP****Local Officer on human Rights and Peace****LPO****Local Public Health Officer****MAMS**

Meta access management system The MAMS project will conduct leading-edge R&D for the integration of multiple solutions to managing authentication, authorisation and identities, together with common services for digital rights, search services and metadata management.

**MLS****Medicolegal society****MOU****Memorandum of Understanding****MSF****Medecins sans Frontieres**

MSI	The Medical Student International
Multi Faith Centre	The Griffith University Multi-Faith Centre established on the Nathan Campus on the edge of Toohey Forest, overlooks the surrounding suburbs and the mountains beyond. The Multi-Faith Centre provides a venue where people from different religious backgrounds can further their education in their own tradition and participate in multi-faith dialogue. The building provides a number of spaces for prayer, reflection and participation in religious practices. The Centre is also a place where members of Aboriginal and Torres Strait Islander communities can meet, maintain culture and offer education to the wider community on significant issues
NAS	National Art School
NCELTR	National Centre for English Language Teaching & Research
NGO	Non-Governmental Organisation
NHMRC	National Health and Medical Research Council
NHRC	Risk Frontier - Natural Hazards Research Centre
NMO	National Member Organisation
NOME	National Officer on Medical Education
NORA	National Officer on Reproductive Health & AIDS
NORE	National Officer on Research Exchange
NORP	National Officer on human Rights and Peace
Notre Dame Australia	The University of Notre Dame Australia has campuses in Fremantle and Broome. Notre Dame declares itself to be one of Australia's most exciting and innovative universities. It was founded in 1990 in WA. It is inspired by one of the greatest Catholic universities in the world, the University of Notre Dame in the United States.
NTEU	National Tertiary Education Union
NUS	National Union of Students
OC	Organising Committee

<b>OH &amp; S</b>	Occupational Health and Safety
<b>OLA</b>	Open Learning Agency of Australia
<b>OPTIVA</b>	Outpatient Intravenous Therapy Association
<b>Oxbridge</b>	<i>Noun</i> :(British) general term for an ancient and prestigious and privileged university (especially Oxford or Cambridge Universities) - A short way of referring to Oxford and Cambridge universities.
<b>Paper Mills</b>	Websites which sell pre-written dissertations, essays, research papers, and term papers to students. (aka Research Paper Mills or Cheat Sites).
<b>PBL</b>	Problem Based Learning
<b>PC</b>	Project Coordinator
<b>PCE</b>	Papyri from the Rise of Christianity in Egypt. A project of the Ancient History Documentary Research Centre [Formerly Corpus Papyrorum Christianarum]
<b>PELS</b>	Postgraduate Education Loans Scheme
<b>PPIPA</b>	Privacy and Personal Information Protection Act 1998 (NSW)
<b>Pro Vice-Chancellor</b>	A Pro Vice-Chancellor (PVC) is a senior academic leader of the University who also has senior strategic University-wide management responsibilities. A PVC may oversee a number of Heads of School and/or may oversee a specific Unit or have a University-wide area of responsibility. The PVC manages staff directly reporting to the office of the PVC. PVCs are members of the Senior Management Team (SMT) and report to the Vice-Chancellor.
<b>PVC</b>	Pro Vice-Chancellor
<b>PWG</b>	Permanent Working Group of European Hospital Doctors
<b>RC</b>	Regional Coordinator
<b>QUT</b>	Queensland University of Technology – a university for the real world
<b>RACS</b>	Royal Australasian College of Surgeons
<b>Rector</b>	Eccl. law. One who rules or governs a name given to certain officers of the Roman church. Dict. Canonique, h.v. (Also



defined as a guider, leader, director, ruler, and master). At **Tel Aviv University** the Rector is the highest-ranking academic official in the University, subordinate only to the Senate, and he/she serves as the permanent chair for Senate meetings. At the **University of Aberdeen** the post of rector dates back to the foundation of the University in 1495, and has been, since 1860, the students' representative on the University Court. Rectors serve for three years and appoint to the Court a Rector's Assessor; the President of the Students' Association further serves student's interests on the Court ex-officio. The Rector plays an important role in representing and supporting the students at the University. The Rector is a position that is independent of both the Students' Association and University administration, allowing the Rector a direct relationship with the students. One of the principal duties is to chair the University Court, at which all major decisions are taken. This ensures that, combined with the President of the Students' Association and the Rector's Assessor (her representative within the University) there is effective student representation at Court. On a day-to-day level, the Rector holds regular surgeries to which any student who would like to raise a particular issue or concern is welcome to come. The Rector also spearheads wider campaigns, both within the University and nationally; to ensure that student life at Aberdeen continues to meet the needs of all students.

A Rector and Vice-Chancellor administers the **University of Ottawa**.

Registrar

RM

Regional Meeting

**Records Management**

**RNSH** **Royal North Shore Hospital**

**RPAH** **Royal Prince Alfred Hospital**

RRTMR

RS

Research and Research Training Management Plan Reports

Re-submit (file) an officer or officer's name will be specified along with the date. This can sometimes be shown as numbered points giving the sequence of who should receive the file.

See Go8

Sandstone



**University****SANEVOCOP**

SC

SCOME

SCOPE

SCOPH

SCORA

SCORE

SCORP

**SCU**

Senate

SES

SG

**SSEC****South Asian Network for Young Conservation Professionals**

Standing Committee

Standing Committee on Medical Education

It is a forum for active discussion for medical students interested in developing medical education. The overall goal is the implementation of an optimal learning environment for all medical students around the world.

Standing Committee on Professional Exchange

It is the largest committee within IFMSA. More than 6000 students worldwide participate in the programme each year. Standing Committee on Public Health

Its importance is to make public health issues in medical education and more prominent to the profession and the community. The promotion of a healthy lifestyle through the eradication of smoking, improvement in diet and increasing physical activity

Standing Committee on Reproductive Health including AIDS

It aims to raise awareness among medical students about Reproductive Health including sexual education, gender equity, sexual violence, as well as Sexually Transmitted Infections.

Standing Committee on Research Exchange. It allows students interested in medical research the possibility to experience research work in a foreign country.

Standing Committee on human Rights and Peace. It deals with the problems faced by displaced people and participates in relief efforts. SCORP also works for the prevention of conflicts and human rights abuses.

**Southern Cross University**

Academic Senate

Student Enquiry Service

Secretary General

**Society for the Study of Early Christianity**

**Swinburne****TAF**

Travel Assistance Fund

**TDC**

Technical Data Card

**TER****Tertiary Entrance Rank (replaced by UAI)****TFN****Tax File Number****TOM**

Team of Officials Meeting

**TRIM**

Tower Records and Information Management

**Turnitin**

Web-based plagiarism detection system - The online system, called Turnitin, compares students' assignments those of their classmates, previous students from Macquarie and other universities, with material available on the Internet, and with both freely available and subscription-based electronic journals - altogether billions of pages of text. The day after the assignment is submitted, the lecturer is emailed a report highlighting any non-original content in the student's work. The online system will supplement, rather than replace, the University's existing plagiarism policy.

**U3A****University of the Third Age****UAC****Universities Admission Centre****UAI****University Admissions Index****U-Can****University of Canberra****UN**

United Nations

**UNAIDS**

Joint United Nations Programme on HIV/AIDS

**UNDP**

United Nations Development Programme

**UNE****University of New England****UNESCO****United Nations Educational, Scientific and Cultural Organisation****UNEVOC****International Project on Technical and Vocational Education****UNFPA**

United Nations Population Fund

UNHCR United Nations High Commission for Refugees  
UNICEF United Nations Children's Fund

Uni University

UniSA University of South Australia – experience the difference

UNS Unified National System - a term used to describe the higher education industry after the abolition of the “binary divide” between universities and colleges of advanced education

UNSW University of New South Wales, *UNSW A Portrait* by Professor Patrick O’Farrell, covers the first fifty years of UNSW’s history.

UoW University of Wollongong – Excellence in Education since 1951

UQ University of Queensland

USC University of the Sunshine Coast

USQ University of Southern Queensland

USS Undergraduate Studies Section (in common usage)

USyd University of Sydney

UTas University of Tasmania – Nationally Distinctive. (sometimes UniTas)

UTS University of Technology, Sydney

UWA University of Western Australia

UWS University of Western Sydney – bringing knowledge to life

Var’si’ty – Noun - 1. a British abbreviation of ‘university’; usually refers to Oxford University or Cambridge University or 2. a team representing a college or university – first team,

VC Vice-Chancellor

VCMC Vice-Chancellor’s Management Committee

VCP Village Concept Project

**VET****Vocational Education and Training**

VPE

Vice-President for External Affairs

VPI

Vice-President for Internal Affairs

**VUT****Victoria University of Technology**

WFME

World Federation on Medical Education

WFPHA

World Federation of Public Health Associations

WHO

World Health Organisation

WHO-AFRO

WHO Regional Office for Africa

WHO-EMRO

WHO Regional Office for the Eastern Mediterranean

WHO-EURO

WHO Regional Office for Europe

WHO-SEARO

WHO Regional Office for the South-East Asia

WHO-WPRO

WHO Regional Office for the Western Pacific

WMA

World Medical Association

YFJ

Youth Forum Jeunesse

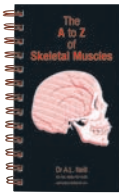
for more details see **The A to Z of Medical and Academic Associations, Abbreviations, Terminology and other Jargon.**  
 see more details on [www.aspenonlinelearning.com](http://www.aspenonlinelearning.com)



Graphic Design Left Hemisphere

# The A to Z Project so far.....

## Pocket Reference Books



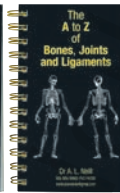
(origins insertions actions  
BS & NS of each muscle  
listed alphabetically)



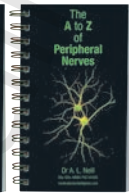
(including radiology of  
the Skull)



(including pronunciation  
guide, anatomy word  
builder, abbrev. of  
medical qualifications  
and organ wgt.)



(each bone's features and  
its articulation group  
relations, individual joints,  
movements, BS & NS, and  
joint classifications listed)



(including a clinical  
section with examination  
techniques for general  
nerve disorders and  
assessments)

Websites: [www.aspenatlas.com](http://www.aspenatlas.com) [www.aspenonlinelearning.com](http://www.aspenonlinelearning.com) [www.amandasatoz.com](http://www.amandasatoz.com)  
email us for complete access to the many A to Z educational aids

- The A to Z of Histological and Anatomical images
- The A to Z of Skeletal Muscles
- The A to Z of Medical quizzes

### Other proposed titles

list in order of priority

- The A to Z of the Hair, Nails and Skin.
- The A to Z of Surface Anatomy.
- The A to Z of the Head and Neck
- The A to Z of Emergency Medicine
- The A to Z of Anatomical Quizzes
- The A to Z of Gynecological anatomy
- The A to Z of Radiology

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### Research projects

#### The A to Z of Topographical anatomical mapping

in conjunction with the Forensic Institute of NSW and Anatomy Update

### What did you use this text for ?

Student use

Medical use - continuing education/patient explanation

Forensic use

Health professional use / other

Personal use

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