

Other prefixes of directions or positions:

extra- = outside, additional.

Examples: **extracranial** = outside the skull

extraoral = outside the mouth

extra copy = additional copy

extra fees = additional fees

ipsi- = the same.

Example: **ipsilateral** = at the same side.

contra- = against, opposite.

Examples: **contralateral** = at the opposite side.

contraception = against conception.

contraindication = against the use (of a drug, a procedure ...)

counter- = against, opposite.

Examples: **counteract** = an act against (something).

countercurrent = flowing in an opposite direction.

syn- (and sym-) = together, same, united, common.

Examples: **synthesis** = putting parts together (production)

synapse = joining nervous impulses together.

synchronization = occurring at the same time (events)

symport = traveling together (ions).

symphysis = growing together (bones).

syndrome = running together (signs or symptoms of a medical condition)

sympathy = common feeling.

trans- = across, through, change.

Examples: **translocation** = a change in location.

transduction = a change in the kind (signal , energy ...).

transabdominal = through the abdomen (ultrasonography).

transpalatal = across the palate (bar)

dextro- = to the right, clockwise.

Examples: **dextro**rotation = clockwise rotation.

dextrocardia = heart is located toward the right side of the chest.

levo- = to the left, anticlockwise.

Examples: **levo**rotation = anticlockwise rotation.

levoglucose = left glucose.

ultra- = excess, beyond.

Examples: **ultra**sonic = a sound beyond (that can be heard by the human ear)

ultraviolet = beyond violet (a light beyond that can be seen by the human eye)

para- = near, beside; beyond.

Examples: **para**nasal = beside the nose.

parathyroid = beside the thyroid.

parapsychology = beyond psychology.

paraesthesia = tingling of the skin.

Para- may also be used as a suffix meaning *to bear (offspring)*.

ab- = from, away from.

Examples: **ab**duction = movement of a limb away from (an axis of) the body. (*-duction*: act of leading, bringing, conducting)

abnormal = away from normal (not normal).

aboriginal = from the earliest inhabitants.

ad- = toward.

Examples: **ad**duction = movement of a limb toward (an axis of) the body.

adnexa = adjoining an organ.

circum- = around.

Examples: **circum**renal = around the kidney.

circumventricular = around the ventricles (of brain).

circumpulpal = around the pulp.

dia- = through, across, completely, apart...

Examples: **diarr**hea = flow through.

diameter = the distance from one side to the other, through the center.

dialysis = filtration and purification of blood using a machine.

diagnosis = identifying a disease.

diagonal = sloping line.

diastema (plural diastemata) = is a space between two adjacent teeth.

diaphragm = a barrier separating two cavities.

diapedesis = the passage of white blood cells through the walls of capillaries.

diaphysis = the shaft of a long bone.

diabetes = a disease of too high blood glucose.

ecto- = outside, outward.

Examples: **ecto**plasm = the outer part of the cytoplasm.

ectoderm = the germ layer that covers the outside of the embryo.

endo- = in, within.

Examples: **endo**crine = secretes within.

endodontic = treatment of the soft pulp tissue inside the tooth.

endothelium = single layer of cells lining the interior surface of vessels.

endometrium = the innermost lining layer of the uterus.

endocardium = the innermost lining layer of the heart.

meso- = middle, intermediate, between.

Examples: **mesopotamia** = between two rivers (Iraq, between Tigris and Euphrates).

mesoderm = a germ layer between ectoderm and endoderm.

mesencephalon = the midbrain.

en- = inside, in, within, put in, cause to be, make into.

Examples: **encephalon** = inside the skull.

encircle = put in a circle.

encourage = cause to be courageous.

embody = make into a body.

ex-, exo- = out, outside, previous.

Examples: **exodontia** = tooth out (extraction).

exit = a way out.

expresident = the previous president.

ec- = out from, away from.

Examples: **eccentric** = away from the center or the axis.

ectopic = in an abnormal place or position.

Exercise: Search the web, textbooks and other resources for additional examples of the abovementioned prefixes, their meanings and uses.