



# XERODERMA PIGMENTOSUM

## FIRST STAGE

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**MEDICAL BIOCHEMISTRY**



## Xeroderma Pigmentosum (XP) :



**Xeroderma Pigmentosum (XP) is a rare genetic disorder characterized by extreme sensitivity to ultraviolet (UV) rays from sunlight, leading to a high risk of skin damage and cancer.**





**molecular basis**  
**Nucleotide Excision Repair (NER) pathway dysfunction**  
**is the main mechanism.**

**NER normally recognizes and removes bulky DNA**  
**lesions and then fills and ligates the resulting gap.**

**mutations in genes encoding proteins required for NER**  
**or for translesion synthesis cause XP.**

**these genes form complementation groups, classically**  
**labeled XP-A through XP-G, plus a variant form (XP-V).**





**Cockayne Syndrome :**  
**Cockayne Syndrome is a rare genetic disorder characterized by growth failure, premature aging, and sensitivity to sunlight.**





(etymology) **XERO-**: from Greek "xēros"  
(ξηρός) meaning "dry."

**DERMA**: from Greek "derma" (δέρμα)  
meaning "skin."

**PIGMENTOSUM**: from Latin "pigmentum"  
meaning "pigment" or "coloring," with the  
adjectival suffix "-osum" indicating  
abundance—so "pigment-rich" or "marked by  
pigmentation."









THANK YOU  
FOR YOUR  
ATTENTION !

