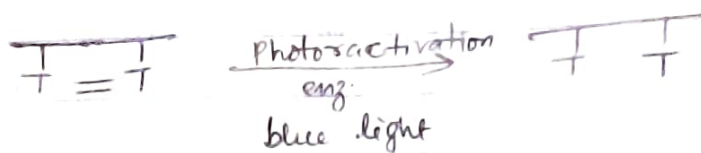


DNA repair mechanism

In normal persons, there are some repair mechanisms for repair of DNA damage ~~due to~~ caused by ultraviolet radiation.

(1) By photoactivation enzyme -

$\overline{T} = \overline{T}$ (Thymine dimer) - DNA damaging
Photoactivation enzyme repairs ~~th~~ and breaks
this dimerisation



(2) Excision repair -



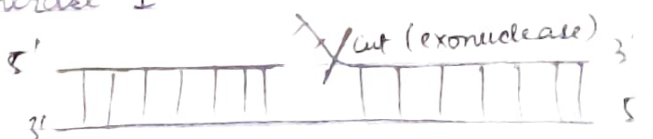
Four type of enzymatic activity is required for this type of repair

a) Endonuclease - Cut base sequence in 5'-portion
of DNA



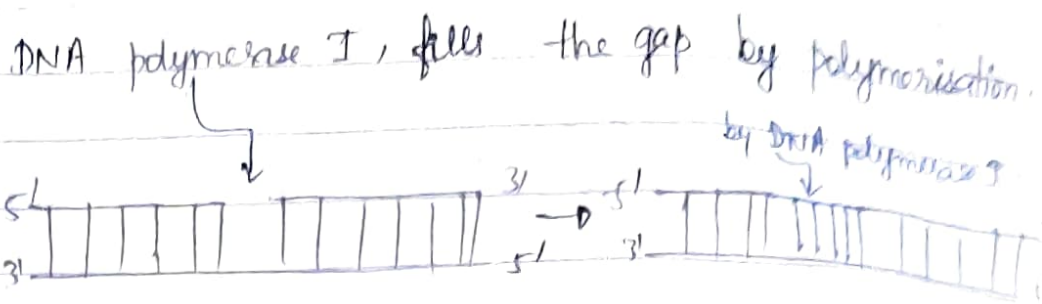
b) 5'-3' exonuclease activity -

This activity is generally performed by DNA polymerase I.



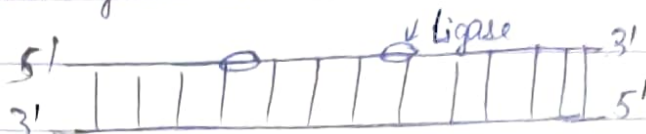
c) Polymerization -

DNA polymerase I, fills the gap by polymerisation.



d) Ligation —

Ligase joins the new bases with old strand.



→ Persons who lack repair mechanism can't overcome these mutations.

* Xeroderma pigmentosum :

Defect in which repair mechanism (gene) are not present. Persons suffering from this disease have spotted skin and skin cancer develops in them. These persons have severe effect of UV rays.