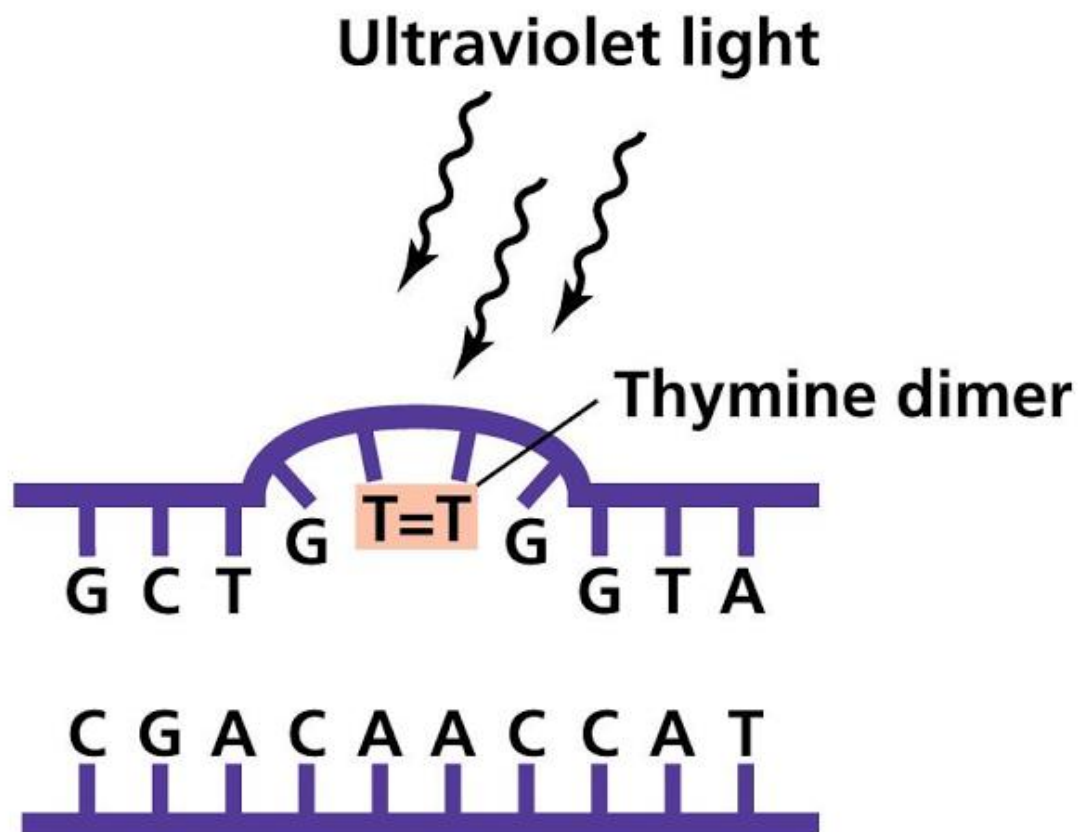


Pyrimidine dimers are abnormalities in the organization of DNA, which can lead to the development of mutations, if not corrected at once. These dimers can be formed between two cytosine or two thymine bases, located one by one in one of the strands. They form in the result of action of ultraviolet light on the double bonds between the carbon atoms in the ring of bases. The energy of ultraviolet causes the rearrangements of electrons in the nitrogen containing bases, and development of covalent bond between two neighbor thymine or two neighbor cytosine bases located within the same strand. The hydrogen bonds formed with A or G in the opposite strand are broken and the two DNA strands become unjoined for the length of several nucleotides. The image below represents how it looks in case of thymine dimers.



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