



Figure 1. Structure of the major UV-induced photoproducts in DNA. Absorption of UV light by DNA induces mutagenic photoproducts or lesions in DNA between adjacent pyrimidines [thymine (T), cytosine (C)] in the form of two main types of dimers. (a) Two adjacent T molecules (shown here), or an adjacent T and C residue, can be converted to a T–T or C–C cyclobutane pyrimidine dimer (CPD), respectively. The double bonds between C-4 and C-5 carbon atoms of any two adjacent pyrimidines become saturated to produce a four-membered ring. (b) In the other type of dimer, (6-4) photoproducts are formed between the 5' C-4 position and the 3' C-6 position of two adjacent pyrimidines, either between TC (shown here) or CC residues. For further information, see Ref. 133 ([fig001hah](#)).