

Mutation - Change to The DNA *permanent*

4 types of Mutation

1) Point mutation



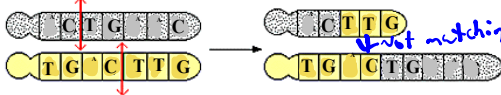
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2) Deletion

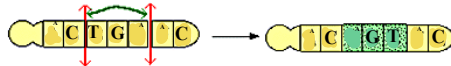


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3) Translocation



4) Inversion



Mutations of Chromosomes

What is a gene mutation and how do mutations occur?

A gene mutation is a permanent change in the DNA sequence that makes up a gene.

Mutations range in size from a single DNA building block (DNA base) to a large segment of a chromosome.



Gene mutations occur in two ways:

1) They can be inherited from a parent

Mutations that are passed from parent to child are called hereditary mutations. This type of mutation is present throughout a person's life in virtually every cell in the body

Gene mutations occur in two ways:

2) Acquired mutations - a change in the DNA due to some environmental factor, such as ultraviolet radiation from the sun, or can occur if a mistake is made as DNA copies itself during cell division.

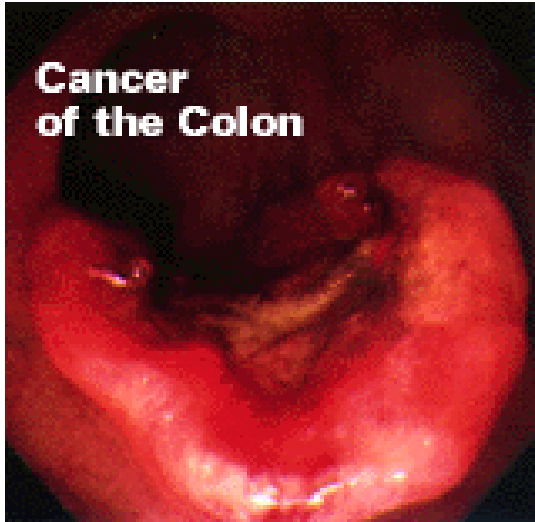
Acquired mutations in somatic cells (cells other than sperm and egg cells) cannot be passed on to the next generation.

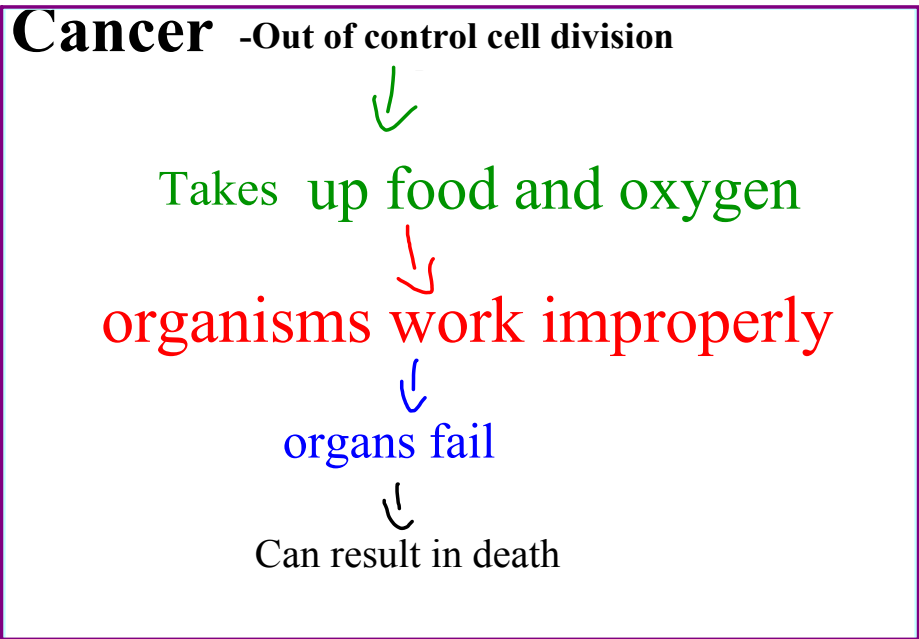
Carcinogen -A substance that can cause a mutation



Ex. -Viruses, radiation & hazardous chemicals

Cancer -Out of control cell division (mitosis)





Tumour → A mass of cells.
Benign → A harmless tumour
Malignant → A Harmful tumour

