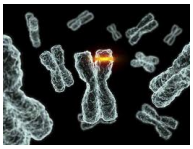
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Causes of Mutations and Gene Flow

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Mutation's Influence on Evolution



Mutations are a sudden change in the genetic material, and it happens in the natural state and rarely in the induced state.

Causes of Mutations

Mainly mutations are caused by

- Transposons
- Mutagenic chemicals
- DNA copy error
- Radiation
- Viruses

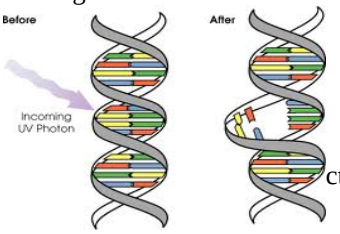
Let’s discuss some in detail

1. DNA copy error or failed DNA copying

Mutations are mostly occurring naturally. Duringcell division, a DNA copy will be made and the copy sometimes won’t be identical or perfect. These minute differences mean a lot and create mutations.

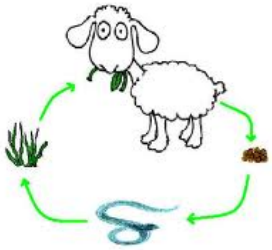
2. Induced mutations

Even though the mutation is a naturally occurring event, it sometimes gets induced by some factors. The fa



ctors inducing mutations are mainly from outside. It can occur when the organism exposed to some chemicals or UV radiation. Once they are exposed to these factors, the factor may damage the DNA or make the DNA break down. After this, the self repairing system of the cell tries to repair it. But sometimes the self repairing system fails to do it perfectly. Lack of the perfect repair it may end up with mutations. As a result the DNA can show small or minute differences, and it will slightly differ from the original one or from the one from where it gets copied. This is termed as ‘mutation’.

What is Gene flow?

Gene flow is also termed as migration. You might have heard this word “migration” earlier like “migration of birds.” The migration means the movement of genes from one population to another. Because of this migration, new combination of genes is possible. Many t  hings can cause this. For example, humans move from one place to another place or one country to another country. They may produce children there and the parent’s genes automatically migrate to other place. Same for birds, too, as during migration they may mate with local birds and spread their genes. In plant life, air blows the pollen of the flower which will then reach some other place and pollinate another flower. If the destination place does not have these genes previously, them it is a very important process for the source of genetic variation. A particular gene can get transformed through the food chain too.

This genetic variation randomly helps for the evolution process. This genetic variation can happens with the addition of genes or the deletion of genes.

Have you ever heard that pregnant ladies should not get exposed to UV rays? The scanning of the fetus using X-rays is also restricted for some periods. Do you know why? Because the rays may affect the child and the DNA may be altered and that could end up causing a defect in the child's body.

Want to know more about mutation changes? Click here to schedule live online session with e Tutor!

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Reference Links:

- http://en.wikipedia.org/wiki/Evolution
- http://evolution.berkeley.edu/evosite/evo101/IIIC3Causes.shtml
- http://en.wikipedia.org/wiki/Mutation
- http://en.wikipedia.org/wiki/Gene_flow

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