

Cell division, the process by which cells come from preexisting cells, is the process that allows species to continue. Just as cells reproduce as part of the cell cycle, living organisms reproduce as part of their life cycle.

**Organism of all species reproduce .
They may reproduce sexually or
asexually.**

Asexual Reproduction

- one parent (One cell)
- one cell divides into two identical cells.

Sexual Reproduction

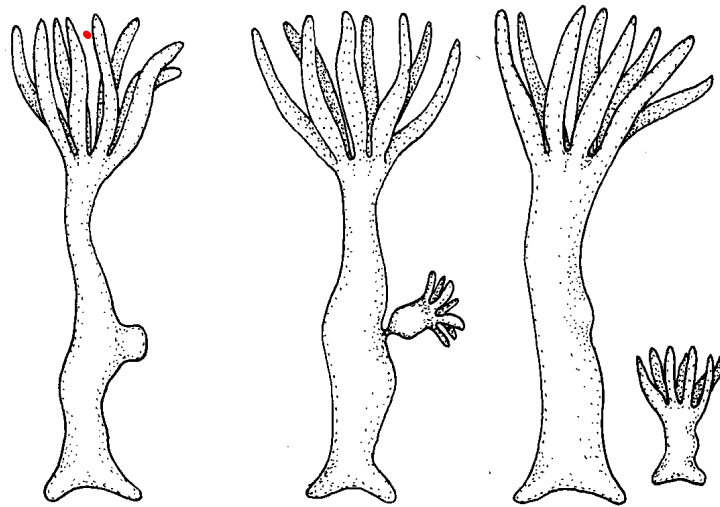
- two parents (Two different cells)
- two cells fuse to form a unique cell.

Asexual reproduction



Asexual Reproduction

- usually the method of choice for simple organisms (not always)
- the simplest form, the mother cell duplicates and becomes 2 daughter cells
- the offspring are identical to the parent



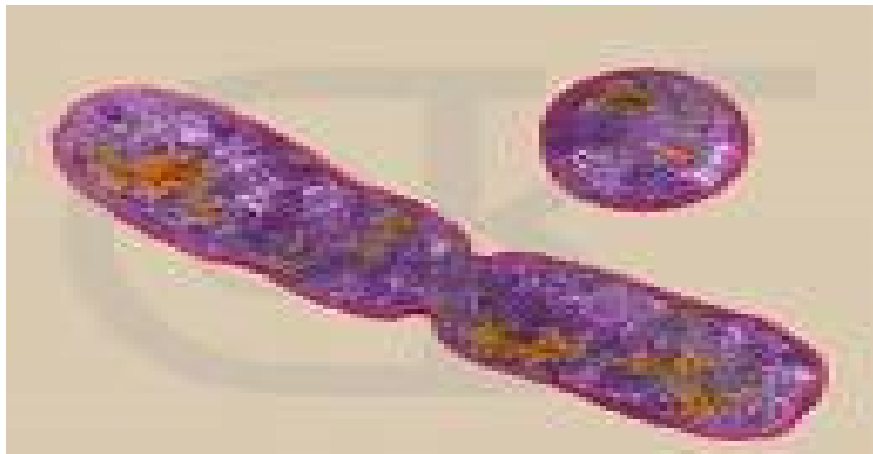
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Forms of Asexual Reproduction

1) **Binary fission** - the organism splits into two equal-size offspring.

ex . intestinal bacteria.



<https://www.youtube.com/watch?v=X7Qz9oc4DsA>



Forms of Asexual Reproduction

2) **Budding** - the offspring begin as an outgrowth of the parent. Eventually buds break off from the parent. ex: hydra, yeast, tapeworm



<https://www.youtube.com/watch?v=Mxmu3phxSHw>



There are different types of tapeworms and their infections in the human body.

Some tapeworms are only a few inches long while others measure from 10 to 30 feet or more in length. Here are a few popular tapeworms:

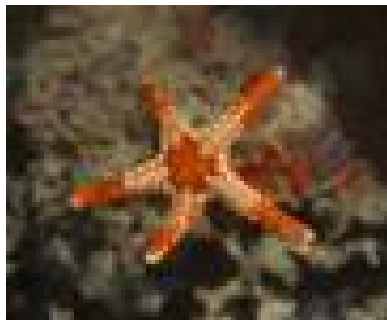
The pork tapeworm – this tapeworm measures between 6 to 10 feet in length. When the pork meat is not cooked properly and it's consumed; the consumer becomes infected.

- The beef tapeworm – when the beef tapeworm is fully grown, it measures between 15 to 20 feet in length. Cattles contact the tapeworm worms by grazing on a grass contaminated by human waste and thus picking the eggs into their system. When humans in turn eat incompletely cooked beef, they also contract the tapeworm disease and the chain actions continues.

- The fish tapeworm – the longest fish tapeworm could measure up to 30 feet in length. It takes 5 to 6 weeks for the tapeworms to be fully matured. When human wastes of tapeworm infected people are discharged into fresh water, the tapeworm eggs hatches and are eaten by the water fleas. The fresh water fish now eats the infected water fleas, and the fish tapeworm parasite finally lodges in the muscles of the fish. When humans eat incompletely cooked fish, the parasites are released in the human intestine and the process continues. There are other kinds of tapeworms that are not much popular probably because humans do not consume the hosts' meat. There are the rat tapeworm, the dwarf tapeworm, and the dog tapeworm etc.

Forms of Asexual Reproduction

3) **Fragmentation**- a part of the organism breaks off from the parent and forms a new organism.



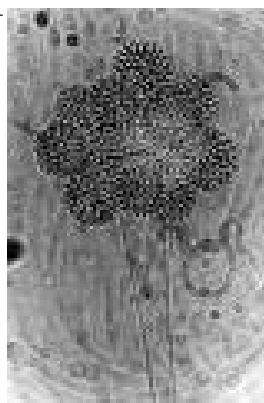
ex. starfish, algae

<http://en.wikipedia.org/wiki/Starfish#Reproduction>



Forms of Asexual Reproduction

4) **Spore formation** - the organism undergoes cell division to produce a duplicate cell. The spore is usually housed within the parent cell



ex. penicillium mould