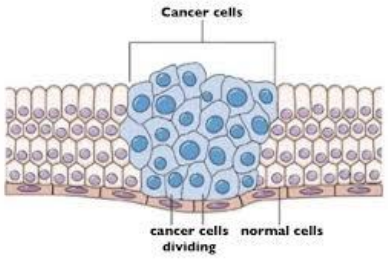
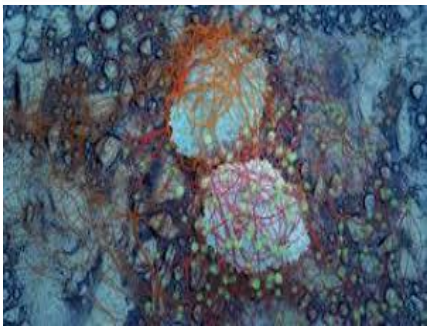
Cell Division

NOTS:

- Characteristic way in which somatic (non_ sex) cell divide.
- Apparent cell will copy of all its internal component , divide them equally and then split in half to form 2 daughter cells { each cell is diploid(2N)}.
- The daughter cells formed are identical to each other.
- In single _ cells .eukaryotic organisms (ex. The protest Kingdome) this is the way that they form new individuals.
- When an egg is fertilized , it undergoes mitosis to form a large mass of cells that will eventually be known as the embryo.
- When you cut you your hand , dead cells are replaced by new ones that come from the division of undamaged cells.
- Mitosis is tightly controlled by the cell cycle to ensure that mitosis happens only when it is needed.
- When the cell cycle repeat uncontrollably , the cells continue to divide and produce new daughter cells that are not needed _ this can lead to the formation of tumor and quite possibly to cancer.



- Cancer begins with one cell.
- If that one cell loses the ability to regulate its cell cycle , the two new daughter cells will not have that ability either .
- When the two daughter cells divide , their daughter cells likewise will no longer have that ability to regulate cell cycle , and so on ....
- After only a few round , millions of cells will have lost this ability and a tumor will be formed .



- Certain cell types eventually lose their ability to complete the cell cycle and can no longer produce new cells , if these cells become injured or die, there is no way for the organism to replace them :EX, Nerve cells.