

- Exact copies of cells must be produced to replace cells that die or are damaged.
- 3. Maintain chromosome number
 - Mitosis prevents chromosomes from doubling.
- 4. Asexual reproduction (plants only)
 - Produces offspring that are identical to their parents and to each other (assuming no mutation occurs)

Cancer

- Caused by growth disorder of cells
- Result of damage to the genes that regulate mitosis and cell cycle, leading to unrestrained growth of cells.
- A group of abnormal cells / irregular mass of cells (tumours)
- Develops rapidly, expands in size, different shapes

Tumor

- A mass of abnormal cells
- Neoplasm: abnormal proliferation of genetically altered cells
- Benign tumor:
 - ↳ Abnormal cells remain at original size (in lumps)
 - ↳ Stops growing by itself
 - ↳ Does not invade other tissues (not metastasis*)
 - ↳ Does not cause serious problems, can be completely removed by surgery
- Malignant tumor:
 - ↳ Invasive enough to impair the functions of 1 or more organs (synonymous with cancer)
- * Metastasis: spread of cancer cells to locations distant from the original site