What is Cancer?

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Cancer is not a single disease, but a group of numerous related diseases that have to do with cells. All living things are made up cells. Our body has billions of cells. Cells grow and divide to form new cells as needed. Cells that get old or damaged die, and new cells replace them.
The uncontrolled growth of abnormal cells in the body is cancer. Old cells do not die, and abnormal cells grow out of control. These excess abnormal cells form a mass, which is called a tumor. Some cancers do not form tumors e.g. leukemias.

How cancer begins?

Cancer begins when genetic changes (mutations) affect the way cells grow and divide. The genetic changes (mutations) can be inherited or caused by environmental factors. The genetic changes are a unique combination in every child's cancer. These genetic changes mainly affect three main types of genes:

- Proto-oncogenes - involved in normal cell growth and division.
- Tumor suppressor genes - involved in controlling cell growth and division.
- DNA repair genes - involved in fixing damaged DNA.

How does cancer spread?

Cancer that spreads from where it started to other parts in the body is called metastatic cancer. The process of spread is called metastasis. As the cancer grows, it can spread through the lymphatic system or the bloodstream. Generally, first the cancer spreads to the lymph nodes, which are located in groups in different parts of the body like neck, armpits, groin. Cancer spreads to different parts of the body via the bloodstream e.g. bones, liver, brain, and lungs.

What are the types of cancer?

There are more than 100 types of cancer. They are generally named after the place where they originated. They are also described by the type of cell that formed them. The main categories of cancer are:

- Carcinomas begin in the skin or tissues that line the internal organs.
- Sarcomas develop in connective tissues such as the bone, cartilage, fat, muscle.
- Leukemia begins in the blood and bone marrow.
- Lymphomas and myeloma start in the immune system.
- Central nervous system cancers develop in the brain and spinal cord.