#### **LYMPHOMAS**



#### What are lymphomas?

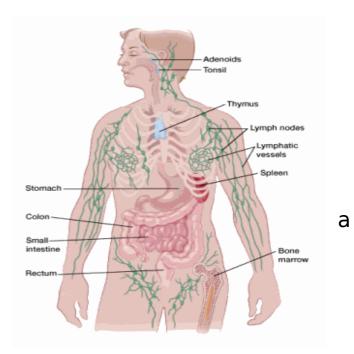
- □ Lymphoma is a blood cancer where a type of white blood cells called lymphocytes are produced in excess and are abnormal.
- ☐ They collect in the lymphatic system and form tumours.
- ☐ There are two types of

lymphoma based on the type of cell affected:

- Hodgkin's lymphoma
- Non-Hodgkin's lymphoma

### What is the Lymphatic System?

- ☐ This system is closely related to the blood circulation system.
- ☐ The organs that are part of the lymphatic system are many and include the spleen,

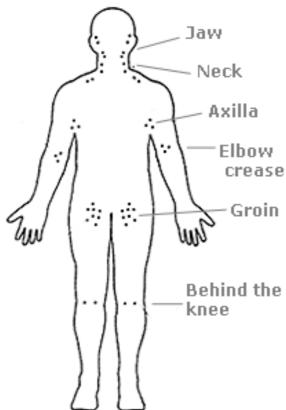


bone marrow, lymph nodes, tonsils.

- ☐ The system also has lymphatic vessels which are like tubes.
- ☐ The lymphatic vessels works to drain fluid that is found in between cells and carries into the veins

that are going to the heart

- ☐ The organs of the lymphatic system work to detect invading germs and activate cells that fight against these germs.
- ☐ Another function is making lymphocytes which are cells that fight against germs in the body.
- □ In a patient who has a lymphoma, lymphocytes are made in excess and fill up in the lymphatic system.
- □ They can cause swelling of lymph nodes which feel like lumps under the skin at the jaw, neck, armpit, elbow or groin



Position of the lymph nodes in the body

### What are the types of Lymphomas?

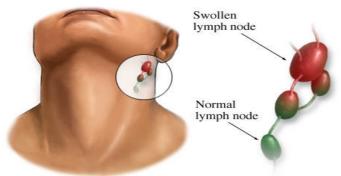
- Non hodgkins Lymphoma
- Hodgkins Lymphoma

# What are the risk factors for developing Lymphomas?

Certain factors increase the chances of getting lymphoma:

- Infection by viruses such as HIV
- Exposure to radiation either at work or during treatment for a previous cancer
- States of low immunity like HIV or after an organ transplant.
- Genetics- Some gene abnormalities may make one more likely to get lymphoma
- Smoking

# What are the general symptoms of both Lymphomas?



- ☐ Swellings in the neck, armpit, groin
- ☐ Abdominal swelling or pain
- ☐ Frequent infections
- ☐ Excess body itching
- ☐ Fever, weight loss or sweating a lot at night
- ☐ Persistent cough

**REMEMBER:** These symptoms don't always mean you have lymphoma. Visit a doctor early if you get any of

them. The earlier the lymphoma is detected the better the cure rate.

### How is diagnosis of Lymphomas done?

- ☐ After visiting a doctor he/she will
  - Take a history of the patient's health
  - Do a physical examination
  - Take a biopsy, a small piece of tissue, from the body swellings for examination
  - Do some blood tests
  - May do an x-ray of the chest and a CT scan of the chest or abdomen.
- ☐ These tests will detect whether the patient has a lymphoma and show the type of lymphoma.

### What are the treatment options?

- ☐ Lymphomas are very treatable especially if found early.
- ☐ Treatment methods include:
  - Chemotherapy: Drugs are given to kill the cancer cells and slow down the rate at which they are being made.
  - Radiotherapy: Directly applying radiation to the areas in the body with the lymphoma in order to kill the cancer cells.

### What Can I do to prevent lymphomas?

- □ Prevention of HIV infection. HIV positive patients should take their antiretroviral drugs(ARVs) This can help prevent Non-Hodgkin's lymphoma.
- ☐ Consume Healthy diet including lots of green vegetables and fruits
- ☐ Lymphomas may not always be preventable, so if

you develop any of the above symptoms, visit a doctor as soon as possible. Early detection leads to better chances of cure.

## Is there a difference between lymphoma and leukemia?

## Yes, they are different. Differences between the two include:

Aspect	Leukaemia	Lymphoma
Source of cancer cells	Bone marrow	Lymphatic system especially the lymph nodes
Types	Acute or chronic OR myeloid or lymphoid leukaemia	Hodgkin's or non-Hodgkin's lymphoma
Main symptoms	Easy bleeding and bruising, recurrent infections, easy tiredness	Swellings in the areas with lymph nodes, abdominal swelling, excessive sweating at night, fever
Diagnosis based on	Blood tests and bone marrow aspirate	Lymph node biopsy

#### **REFERENCES**

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