

Lymphoma

Lymphoma is a cancer that begins in the lymphatic system. There are two main types of lymphoma – non-Hodgkin's lymphoma (NHL) and Hodgkin's lymphoma (sometimes called Hodgkin's disease).

The cells of Hodgkin's lymphoma look a particular way under a microscope. Lymphoma cells that do not look like this are a non-Hodgkin's lymphoma. It is important for doctors to be able to tell the difference between the cells of Hodgkin's and non-Hodgkin's cells because they are two different diseases. They are quite similar in many ways but the treatment for each is different.

Non-Hodgkin's lymphoma is one of the most common cancers in Victoria, affecting about 1,170 people a year. It can occur in children but is more common in adults. Hodgkin's lymphoma is much less common. About 160 Victorians are affected each year.

The lymphatic system and lymphoma

The lymphatic system is part of the immune system, which helps protect our body against infection. It consists of lymph nodes connected by lymph vessels, which branch out into all parts of the body except the brain and spinal cord. The lymphatic system also includes the bone marrow, spleen, thymus gland and tonsils. Its main jobs are to:

- Drain fluids back into the bloodstream from body tissues
- Filter the blood and lymph
- Fight infection.

The lymphatic system carries a clear fluid called 'lymph', which contains many white blood cells called lymphocytes. The lymphocytes mature within the blood and bone marrow, and are stored in the lymph nodes. Lymph nodes are found in various areas of the body, including the neck, armpits, chest, abdomen and groin. Lymph fluid is filtered through the lymph nodes and any foreign organisms (such as bacteria) are trapped and attacked by the lymphocytes.

In a person with lymphoma, large numbers of abnormal lymphocytes are made, which replace some of the normal lymphocytes. This can affect the immune system and the way the body fights infections. The lymph nodes also become swollen, forming painless lumps.

The lymphatic system runs through most of the body. This means you can get lymphoma almost anywhere. It is most commonly first seen in the lymph nodes in the neck, but it is also fairly common to find it in the liver or spleen. You may also find lymphoma in the bowel, stomach, brain, skin, testicles and eye.

Symptoms of lymphoma

The most common symptom of lymphoma is a swelling of the lymph nodes in the neck, armpit or groin. These swellings are usually painless. Other general symptoms include:

- Unexplained weight loss (more than one-tenth of your total weight)
- Fever that comes and goes without any obvious cause
- Heavy sweating especially at night
- Some people have unexplained itching.

Doctors call this group of symptoms 'B symptoms'. Some people with lymphoma may have them, but many don't. Sometimes lymphoma gets into the bone marrow, causing problems with low blood counts.

Most people who have any of these symptoms will not have lymphoma. They will be suffering from a much less serious problem such as a throat infection. However, it is always important to see your doctor if you have symptoms.

Risks and causes of lymphoma

We don't know why most people get lymphoma. There are many different types of lymphoma and it is unlikely that there is one single cause of all lymphoma. There are some known risk factors, which include:

- Exposure to radiation
- Exposure to certain chemicals
- Infections and viruses, including the human immunodeficiency virus (HIV) and the Epstein-Barr virus in people whose immune system is suppressed.

There are other possible causes but research continues to find other definite risk factors.

Diagnosis of lymphoma

Most people begin by going to see their GP with symptoms. If your doctor has concerns that you may have lymphoma, they will refer you to a hospital to have a biopsy. This means having one of the swollen lymph nodes taken out and examined under a microscope to see if it contains cancer cells.

If it does, you will need to have further tests to see where and how far the lymphoma has spread. These tests may include:

- **Physical examination and blood tests.**
- **Chest x-rays.**
- **Bone marrow biopsy** – some fluid is removed from the bone marrow and examined for cancer cells.
- **Computed tomography (CT) scan** – a specialised x-ray for building up three-dimensional pictures of the body.
- **Gallium scan** – a short-lived, radioactive form of gallium is injected into the body, and outlines organs in the body when viewed with a special 'gamma' camera.
- **Positron Emission Tomography (PET) scan** – a small amount of radioactive material is injected, which highlights cancerous areas when viewed with a special scanner.

Test results can take a few days to come back. It is very natural to feel anxious while waiting to get your results. It can help to talk to a close friend or relative about how you are feeling. You can also contact the Cancer Council Helpline on 13 11 20 and speak with a cancer nurse.

The stages of lymphoma disease

The disease is 'staged' according to its location and spread. This is important to determine the type of treatment you will need.

- **Stage I** – cancer is found in one lymph node area or one area or organ outside the lymph nodes.
- **Stage II** – cancer is found in two or more lymph node areas on the same side of the diaphragm. Cancer is found in one area or organ outside of the lymph nodes and in the lymph nodes around it. Other lymph node areas on the same side of the diaphragm may be involved (the diaphragm is a sheet of muscle slung beneath the lungs that enables breathing).
- **Stage III** – cancer is found in lymph node areas on both sides of the diaphragm. It may have spread to an area or organ near the lymph node area, or to the spleen, or both.
- **Stage IV** – cancer has spread to more than one spot within or outside the lymphatic system.

Treatment for lymphoma

Treatment for lymphoma depends on the location and severity of the cancer. Treatment for Hodgkin's lymphoma is often very successful, with many people being cured. Non-Hodgkin's lymphoma is also curable but it can be harder to treat.

Treatment regimes are slightly different for Hodgkin's lymphoma and non-Hodgkin's lymphoma. Some people only need one treatment. Others will need a combination. Options include:

- **Watchful waiting** – some forms of slow-growing non-Hodgkin's lymphoma may not need active treatment when first diagnosed. Regular check-ups will be necessary.
- **Chemotherapy** – either tablets or injections of anti-cancer drugs are used.
- **Radiotherapy** – x-rays are used to target and kill cancer cells. This is used in adults, but rarely used to treat children with lymphoma.
- **Steroids** – as tablets or injections to improve how well your chemotherapy works.
- **Immunotherapy (biological therapy, monoclonal antibodies) with antibodies** – treatments that use natural body substances or drugs made from natural body substances. One treatment available in Australia to treat NHL is called rituximab (Mabthera). It is usually combined with chemotherapy. Several more antibody treatments are being developed.
- **Stem cell (or bone marrow) transplantation** – stem cells are the cells that blood cells evolve from. High doses of chemotherapy can damage stem cells so, during this treatment, stem cells are removed from the bone marrow before higher doses of chemotherapy are given. They are then transplanted back after the chemotherapy has finished. This treatment may be suggested if the disease comes back or does not respond to the first treatment.
- **Complementary and alternative therapies** – when used alongside your conventional cancer treatment, some of these therapies can make you feel better and improve quality of life. Others may not be so helpful and in some cases may be harmful. Details of the Cancer Council Victoria's booklet *Complementary and alternative cancer therapies* are in the **Where to get help** section.

All treatments have side effects. These will vary depending on the type of treatment you are having. Many side effects are temporary but some may be permanent. Your doctor will explain all the possible side effects before your treatment begins.

When a cure isn't possible

If lymphoma has been diagnosed in its later stages, the cancer may have spread to the point where a cure is no longer possible. Treatment then focuses on improving quality of life by relieving the symptoms (this is called 'palliative' treatment). Medications can be used to relieve pain, nausea and vomiting.

Caring for someone with cancer

Caring for someone with cancer can be a difficult and emotional time. If you or someone you know is caring for someone with lymphoma they may find it helpful to download and read some of the Cancer Council Victoria information booklets.

Where to get help

- Your doctor
- Specialist
- Cancer Council Helpline Tel. 13 11 20
- Leukaemia Foundation of Victoria Tel. (03) 9620 1815
- Multilingual Cancer Information Line, Victoria Tel. (03) 9209 0169
- Cancer Council Victoria
- Cancer Council Victoria's booklet *Complementary and alternative cancer therapies*.

Things to remember

- Lymphoma is a group of cancers that affect the lymphatic system.
- Symptoms may include swelling of the lymph nodes, weight loss and night sweats.
- They are one of the more common types of cancer in Victoria.

This page has been produced in consultation with, and approved by:

Cancer Council Victoria

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