

MALT
Lymphoma



WHAT YOU NEED TO KNOW

You or your loved one has been diagnosed with MALT lymphoma, a type of blood cancer. MALT stands for mucosa-associated lymphoid tissue. The name refers to the type of cell in your body that has become a lymphoma. What does it mean and how will it affect you?

This fact sheet will help you:

Learn about MALT lymphoma and how it is diagnosed

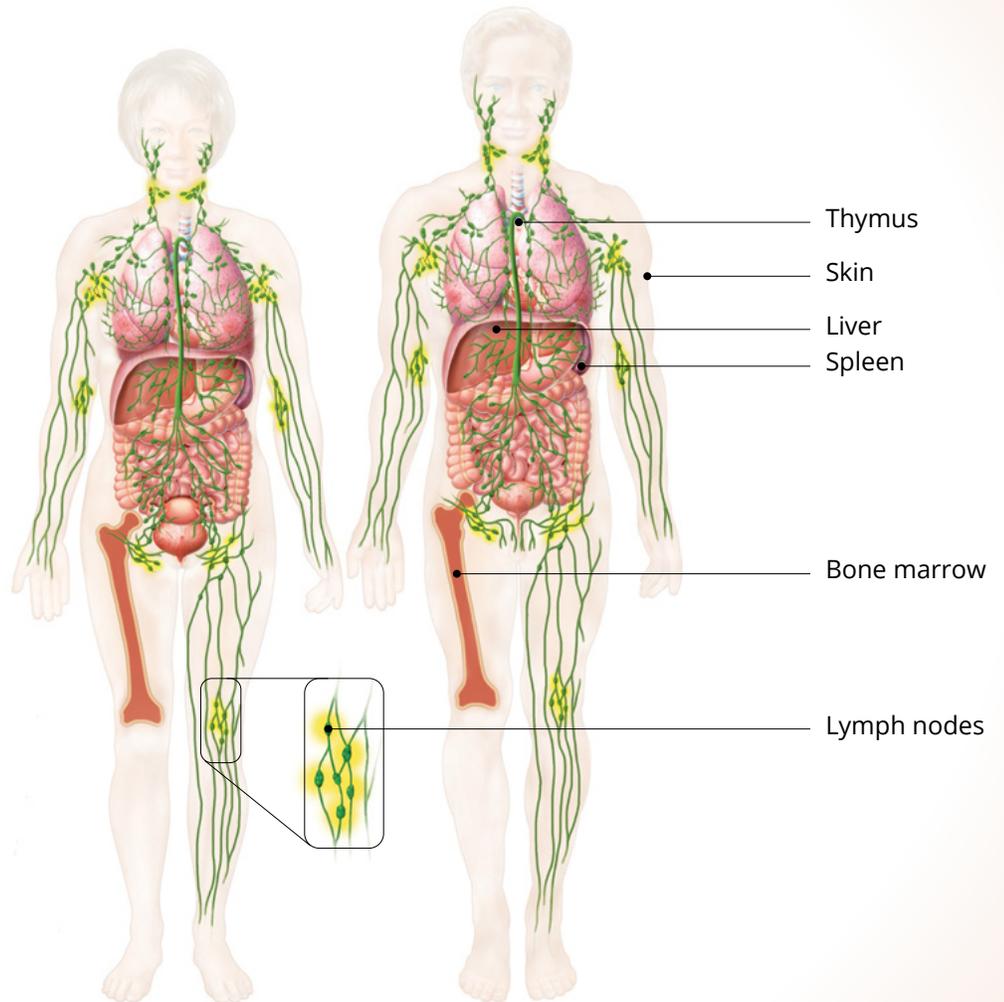
Get an overview of treatment options

Understand what happens next

About lymphoma

Lymphoma is cancer of the lymphatic system, which includes your bone marrow, lymph nodes, thymus, liver, skin, and spleen.

Your lymphatic system defends your body against infection by creating white blood cells called **lymphocytes**. If these cells become abnormal, you may develop lymphoma.



What is lymphoma?

Lymphoma is the name for a group of blood cancers that develop in your lymphatic system. The two main types are Hodgkin lymphoma and non-Hodgkin lymphoma. MALT lymphoma is a subtype of non-Hodgkin lymphoma.

About MALT Lymphoma

- The full name is extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT)
- It is the most common type of marginal zone lymphoma
- MALT lymphoma is a B-cell subtype of non-Hodgkin lymphoma
- It is usually slow growing (indolent) but can be fast growing (aggressive)
- It is often curable if the amount of cancer is limited
- It usually affects sites outside the lymph nodes (extranodal)
- It often starts in the stomach
- It is linked to bacterial or viral infections: more than 60% of gastric (stomach) cases have a history of *Helicobacter pylori* (*H. pylori*) bacteria that infect the stomach

About MALT Lymphoma (cont'd)

- People with MALT lymphoma often have a separate autoimmune disease: Sjögren's syndrome (salivary gland MALT), Hashimoto's thyroiditis (thyroid MALT), or Helicobacter gastritis (gastric MALT)
- MALT lymphoma occurs almost equally in men and women
- The average age of diagnosis is 60

Signs and symptoms

The signs and symptoms of MALT lymphoma can be similar to other diseases. Some people have no symptoms: their disease is uncovered during a routine medical exam. People with gastric MALT lymphoma often have discomfort in their upper abdomen, such as indigestion that doesn't go away. Other symptoms are often related to the location of the disease, such as in the lung, skin, thyroid, salivary glands, or tissues around the eye.

You may experience:

- Ongoing fatigue, loss of appetite, pain in your abdomen
 - If MALT lymphoma is in your stomach
- Loss of appetite and significant weight loss
 - When you are eating less or using more energy
- Fevers and night sweats
 - Related to immune system dysregulation (imbalance) that can be caused by lymphoma

After your diagnosis

Once you have a diagnosis, your doctor can determine the right treatment for you. Your test results help your doctor predict how MALT lymphoma will likely progress and how you may respond to treatment.

Name of test	Description
Medical history and physical exam	The doctor reviews past illnesses, injuries, and symptoms. They examine your lungs, heart, and other organs. They pay close attention to your lymph node areas (such as your head, neck, armpits, and groin).
Complete blood count	This test measures the number of red blood cells, white blood cells, and platelets in a sample of your blood to find out if the counts are high or low.
Blood chemistries	These are taken to see if there are any signs of a more aggressive form of disease that can result in an increase in certain lab values.
Imaging tests	These tests take pictures that let your doctor see where the MALT lymphoma cells are in your body. They are done to determine the stage of lymphoma.

Stages of MALT lymphoma

Identifying the stage of your disease is an important step in planning your treatment. The stage of lymphoma refers to where your disease is located and the extent of the disease in your body.

It does not determine how well you will respond to treatment.

Your doctor will determine the stage of your disease using imaging, lab tests, and a physical exam. This helps them figure out:

- Your lymphoma subtype, such as MALT
- Whether your disease affects organs other than your lymph nodes
- If you have large masses of tumours

Most people with MALT lymphoma are diagnosed at stage I or II.

Stages

Stage I involves one site in the body.

Stage II involves two or more sites in the body on the same side of your diaphragm.

Stage III involves sites on both sides of your diaphragm.

Stage IV involves one or more organs that are not part of a lymphatic area. Or it may involve the liver, bone marrow, or lungs.

Categories

Category A means you have no troublesome symptoms.

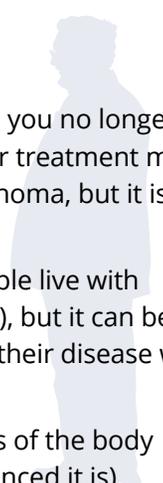
Category B means you have symptoms including fevers, night sweats, or weight loss.

MALT lymphoma treatment

Your treatment is focused on destroying as many lymphoma cells as possible. When you no longer have evidence of lymphoma cells in your body, you are said to be **in remission**. Your treatment may result in **partial remission**: that means your tests still show evidence of MALT lymphoma, but it is under control.

This type of lymphoma develops slowly and treatment is often successful. Most people live with this type of lymphoma for many years. MALT lymphoma often comes back (relapses), but it can be treated and kept under control. In a small number of people with MALT lymphoma, their disease will change into a faster-growing type of lymphoma.

People usually have MALT lymphoma either in the stomach (gastric) or in other parts of the body (non-gastric). It is treated differently depending on the type and the stage (how advanced it is).





Types of treatment



For early-stage (I and II) MALT lymphoma in the stomach, treatments include:

- **Antibiotics** are often the first type of treatment if you have a confirmed *Helicobacter pylori* (*H. pylori*) infection
- **Chemotherapy** uses medicine to kill cancer cells; it is sometimes used if the antibiotics don't work
- **Radiation therapy** uses x-rays or other high-energy rays; it may be done along with chemotherapy if the antibiotics don't work
- **Targeted therapies** like drug therapy target specific substances on the cancer cell
- **Surgery** is not often used for treatment of MALT lymphoma, but it can be used to remove part or all of the stomach if antibiotics don't work or the disease gets worse

For early-stage (I and II) MALT lymphoma outside of the stomach, treatments include:

- **Surgery** to remove the affected area
- **Radiation therapy** or external beam radiation therapy

For advanced-stage (III and IV) MALT lymphoma either inside or outside of the stomach, treatments include:

- **Watch and wait or active surveillance**, for people with slow growing (indolent) MALT lymphoma, which delays treatment until the disease progresses
- **Radiation therapy** or external beam radiation therapy
- **Chemotherapy** to kill cancer cells if the lymphoma is large, is growing, and the cancer is throughout your body or has returned after treatment
- **Targeted therapies** like drug therapy to target specific substances on the cancer cell

Factors that affect treatment

Discuss your treatment options with your doctor to make sure you understand the benefits and risks of each approach. Your treatment plan is based on:

- Your age and overall health status
- The stage of the disease
- The type of MALT lymphoma
- The location of the disease
- Related signs and symptoms
- Whether you have an infection linked to lymphoma





Treatment side effects

When you begin treatment for MALT lymphoma, you may have mild to severe side effects, depending on your age, your overall health, and your treatment plan. Most side effects disappear once your treatment ends. New drugs and therapies can help control most side effects. Speak to your doctor if you are having side effects.

Common side effects

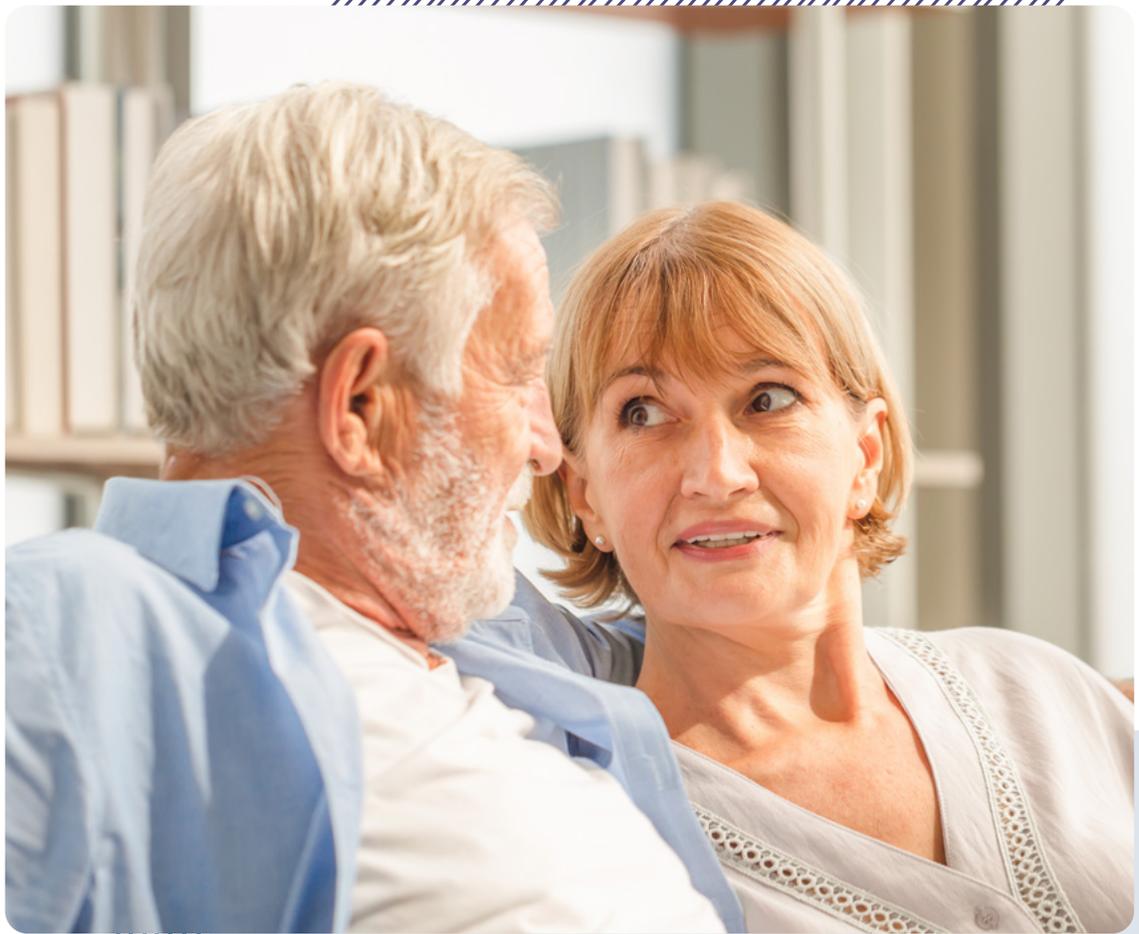
You may experience side effects such as:

- Nausea, diarrhea, vomiting, loss of appetite, and temporary hair loss from chemotherapy treatments
- Fatigue and shortness of breath from low blood counts and chemotherapy
- Fever, chills, infection, rash, mouth sores, and swelling
- Neuropathy (nerve damage) from treatment that can make your fingers and toes feel numb or tingly
- Tumour lysis syndrome (TLS), which can happen when many cancer cells die quickly; TLS changes your metabolism and can lead to other health complications

Long-term or late effects of treatment

Medical follow-up is important after treatment for MALT lymphoma. You may need blood tests, bone marrow tests, or molecular tests to determine if you need further treatment. Your medical team should provide you with a care plan listing how often you will need follow-up visits, and which tests you will have at those visits.

- **Long-term side effects** are common and can last for months or years after treatment ends. Examples include chronic fatigue and problems concentrating (known as chemo brain).
- **Late effects** are medical problems that do not show up until years after treatment ends. See your doctor to get follow-up care for possible early detection of heart disease and secondary cancers.



Living with MALT lymphoma can be overwhelming. Seek medical help if you feel “down” or “blue” or don’t want to do anything and your mood does not improve over time. These could be signs of depression, an illness that should be treated even when you’re undergoing treatment for MALT lymphoma. Treatment for depression has important benefits for people living with cancer. Remember, you are not alone.

This fact sheet was reviewed by:

Dr. Arvand Barghi
London Regional Cancer Program
London Health Sciences Centre



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1 833 222-4884 • info@bloodcancers.ca • bloodcancers.ca