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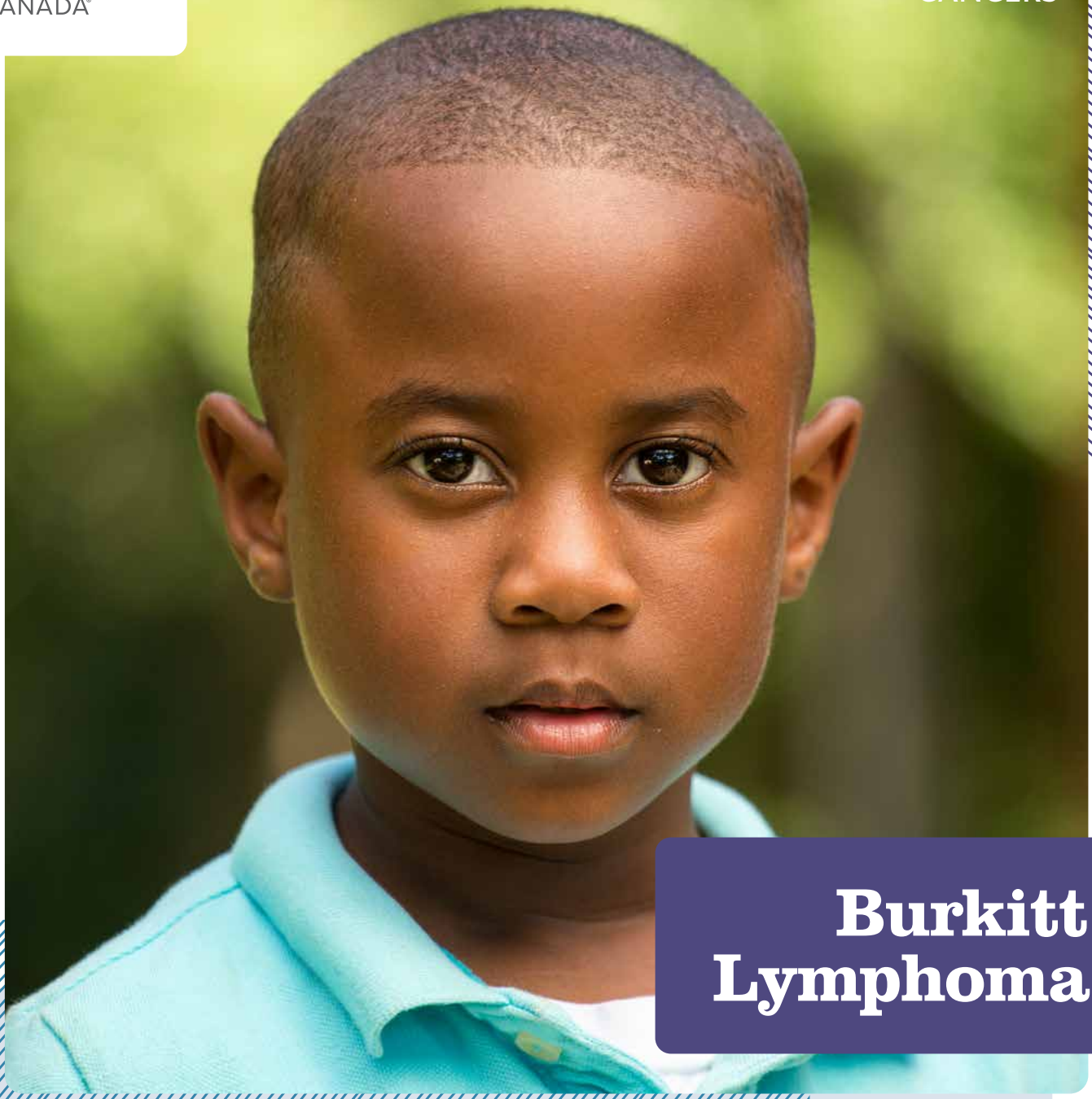


Burkitt Lymphoma

WHAT YOU NEED TO KNOW

You or your loved one has been diagnosed with Burkitt lymphoma. What does it mean and how will it affect you?

This fact sheet will help you:

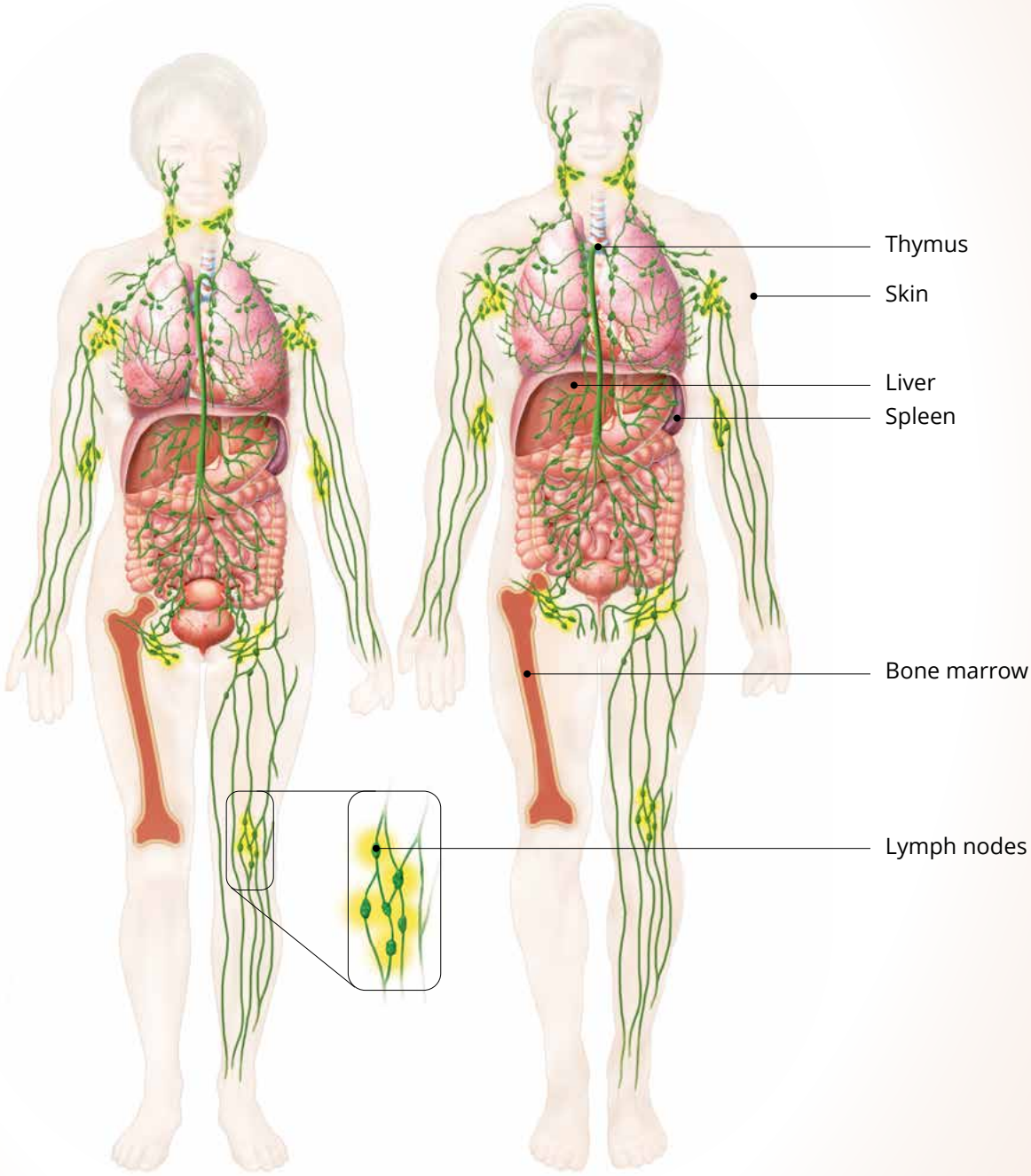
- Learn about Burkitt lymphoma and how it is diagnosed
- Get an overview of treatment options
- Understand what happens next

About lymphoma

Lymphoma is the most common form of blood cancer.

Lymphoma is cancer of the lymphatic system, which includes the 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 Burkitt lymphoma?

Lymphoma is the name of a group of blood cancers that develop in your lymphatic system. The two main types are Hodgkin lymphoma (HL) and non-Hodgkin lymphoma (NHL). Burkitt lymphoma is a subtype of NHL.

About Burkitt lymphoma	• Burkitt lymphoma is a rare subtype of NHL that starts in the B-cells (type of white blood cell) • It is highly aggressive; tumours grow quickly and can spread to different organs and tissues, including the brain or spinal cord • It is linked to changes in a gene called MYC that typically regulates cell growth, change, and cell death • It most often appears in children and young adults • It is the most common type of NHL in children • With treatment, many people can go into remission and be cured • Burkitt leukemia, which starts in the bone marrow and blood, is closely related to Burkitt lymphoma, which starts in the lymph nodes

Symptoms of Burkitt lymphoma

Symptoms often start in the lymph nodes, abdomen, or pelvis. You may have symptoms that affect the jaw, kidneys, bowel, ovaries, GI tract, spleen, throat, tonsils, other organs, or the central nervous system (brain and spinal cord).

You may experience:

Symptom	Cause
Pain in the abdomen, nausea, and vomiting	If it is in your stomach or bowel
Large masses in your abdomen	When your lymph nodes are enlarged or swollen
Fever, fatigue, and night sweats	A possible response from your immune system
Unexplained weight loss, loss of appetite, or feeling full after eating small amounts of food	When you are eating less or using more energy

Your diagnosis

With a diagnosis, your healthcare team can determine the right treatment for you. Your healthcare team includes an oncologist (the primary cancer doctor), who works with a range of professionals such as your family doctor, nurse practitioners, nurses, pharmacist, and social worker to manage your treatment and provide support. Depending on the type of cancer, other specialists like a pathologist, radiologist, or surgeon may also be involved in your care.

Your test results help your healthcare team predict how Burkitt lymphoma will likely progress and how you may respond to treatment.

Here are some possible tests you may undergo:

Name of test	Description
Medical history and physical exam	Your healthcare provider will review past illnesses, injuries, and symptoms and will examine your lungs, heart, and other organs.
Blood tests	Blood tests help determine the need for treatment and the extent of the disease. They also help identify the NHL subtype.
Lymph node biopsy	A sample of the tumour or lymph node is taken to look at the size, shape, and arrangement of the lymphoma cells.
Bone marrow biopsy and aspiration	These two procedures, usually done at the same time, draw bone marrow cells. This testing confirms whether the lymphoma has spread to the bone marrow. It will help your healthcare team determine the benefits of specific therapies.
Imaging tests	**Computed tomography (CT)** uses a computer linked to an X-ray machine to make detailed pictures of areas inside your body. **Positron emission tomography (PET)** uses radioactive material to create a 3D image of your body. It can identify whether lymphoma cells are in the bone marrow and other parts of your body.
Spinal tap (lumbar puncture)	This procedure removes a sample of fluid around your spine and brain to look for cancer cells.

Burkitt lymphoma subtypes

Endemic Burkitt lymphoma	• Can be caused by an infection from the Epstein-Barr virus • Most common in parts of Africa and in New Guinea • Usually develops in children • The face or jaw is the most commonly affected part of the body
Sporadic Burkitt lymphoma	• May develop in adults or children (average age of diagnosis for children is 11 years and 30 years for adults) • Usually starts in the stomach (abdomen) • It is the most common subtype in Canada
Immunodeficiency-associated Burkitt lymphoma	• Often develops in people who have weak immune systems • It is most common in people who have HIV/AIDS • May affect people who take drugs to suppress their immune system after an organ transplant

Burkitt lymphoma stages

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

Your healthcare team will use imaging, lab tests, and a physical exam to figure out the lymphoma subtype, determine its stage, and monitor how it progresses.

Early	**Stage I**	The lymphoma is in one group of lymph nodes or one extranodal site (outside the lymph nodes)
	Stage II	The lymphoma is in two or more groups of lymph nodes on the same side of the diaphragm
Advanced	**Stage III**	The lymphoma is in lymph nodes above and below the diaphragm
	Stage IV	The lymphoma is found in many areas of the body (in the lymph nodes and beyond)

You may have mild to severe side effects during treatment, depending on your age, overall health, and treatment plan. If you do, let your healthcare team know.

Burkitt lymphoma treatment

New treatment approaches will help manage your symptoms and complications, including infections and fatigue. The types of treatment can vary widely and could include clinical trials.

Burkitt lymphoma is aggressive, so treatment needs to start quickly. It often responds well to treatment, and cure rates are high, especially for children and young adults.

Side effects can affect people in different ways. Most side effects improve or go away after treatment ends. New drugs and therapies can help control most side effects.

Types of treatment

Treatment	Description	Potential Side Effects
Chemotherapy	uses medicine (chemicals) to kill lymphoma cells. It also affects the body's healthy, fast-growing cells (such as hair, nails, and blood cells). It is often given in combination with immunotherapy. Chemotherapy is the main treatment for Burkitt lymphoma and can be used to prevent lymphoma cells from spreading to the brain and spinal cord.	low blood cell counts (white, red, and platelets), infection, bleeding, anemia, nausea, diarrhea, vomiting, loss of appetite, brain fog (chemo brain), fatigue, shortness of breath, diseases or disorders affecting the heart (cardiopathy), temporary hair loss, mouth sores, rashes, secondary cancers, and nerve damage (neuropathy)
Targeted therapies	are a type of drug therapy that targets specific substances on cancer cells. These drugs are often given in pill form and may be useful when the disease has relapsed after other treatments. Some targeted therapies are available in Canada; others are only available through a clinical trial.	low blood cell counts (white, red, and platelets), infection, bleeding, anemia, skin problems, high blood pressure, fatigue, diarrhea, neuropathy, and slower healing time for wounds
Immunotherapy	uses an intravenous drug that can either boost or pause your immune system to help your body fight cancer. Immunotherapy is done in addition to chemotherapy. In Canada, it may be available in your province or territory or through a clinical trial.	rashes, fatigue, diarrhea, nausea, vomiting, and decreased thyroid hormone levels
CAR T-Cell therapy	is a form of immunotherapy that helps the immune system attack cancer cells by modifying your own white blood cells (T cells) in a lab. They are then put back into your bloodstream.	low white blood cell count (increased risk of infection), fever, fatigue, nausea, vomiting, diarrhea, low blood pressure, difficulty breathing, neurological changes, muscle or joint pain, rash or skin changes

Clinical trials are research studies that aim to improve the care and treatment of people living with cancer.

For some people with a blood cancer, a clinical trial may be the best treatment choice. Talk to your healthcare team for more information.

Additional treatment information

Stem cell transplant

A stem cell transplant (SCT) gives you healthy stem cells to replace those damaged by cancer or intense chemotherapy and radiation treatments. Your body relies on stem cells to produce blood cells.

Two main types of stem cell transplant are used to treat blood cancers:

Autologous: The stem cells are removed from your body before treatment and placed back into your body after treatment. This allows you to receive high doses of chemotherapy (sometimes with radiation). Using your own stem cells helps your bone marrow produce new blood cells and reset your immune system.

Allogeneic: The stem cells come from a donor. These donor cells replace the damaged ones in your bone marrow, potentially offering a long-term cure.

Possible side effects may include:

- Low white blood cell count (increased risk of infection)
- low platelet count (increased risk of bleeding or bruising)
- low red blood cell count (which can cause fatigue, dizziness, shortness of breath, and feeling unwell)
- mouth sores
- digestive issues (nausea, poor appetite, vomiting, or diarrhea)
- skin and hair changes
- possible effects on organs or the central nervous system

Allogeneic transplants may also cause:

- graft-versus-host disease (GvHD)
- veno-occlusive disease

Factors that affect treatment

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

- Your age and overall health
- The Burkitt lymphoma subtype, stage, and risk level (low to high risk)
- The status of the disease (first diagnosis or relapse, which is when the cancer returns after initial treatment)
- Any other health issues you may have
- Your lifestyle and preferences

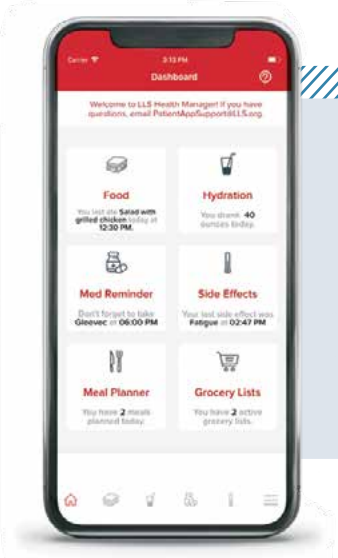
Long-term or late effects of treatment

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

You may experience long-term or late effects of your treatment:

- **Long-term side effects** can last for months or years after treatment ends. Examples include fatigue; tingling, numbness, or pain in your hands and feet; brain fog; and the risk of infection.
- **Late effects** are medical problems that do not show up until years after treatment ends. See your healthcare team to get follow-up care for possible early detection of heart disease, secondary cancers, fertility issues, thyroid problems, trouble concentrating, or chronic fatigue.

Living with Burkitt 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 Burkitt lymphoma. Treatment for depression has important benefits for people living with cancer. Remember, you are not alone.



Track your side effects with the

Blood Cancer United Health™ app

bloodcancers.ca/blood-cancer-united-health-app

Managing your side effects is an important part of cancer care. Tracking your medication, side effects, and food and nutrition intake allows you to share the information easily with your doctor to identify patterns and strategies.

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