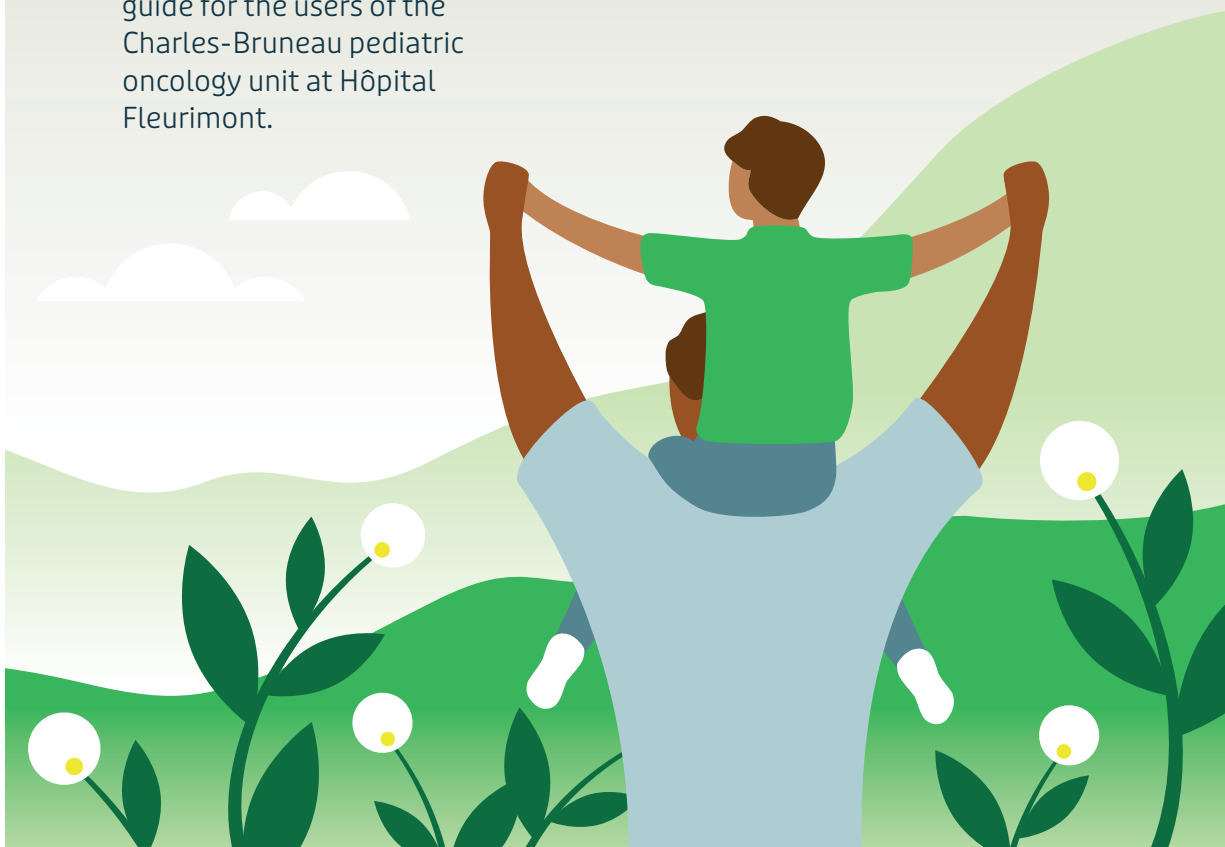


Pediatric Oncology

Welcome and information
guide for the users of the
Charles-Bruneau pediatric
oncology unit at Hôpital
Fleurimont.



© Guide réalisé en 2024 par la Direction des services spécialisés, chirurgicaux et de cancérologie du Centre intégré universitaire de santé et de services sociaux de l'Estrie – Centre hospitalier universitaire de Sherbrooke (CIUSSS de l'Estrie – CHUS)

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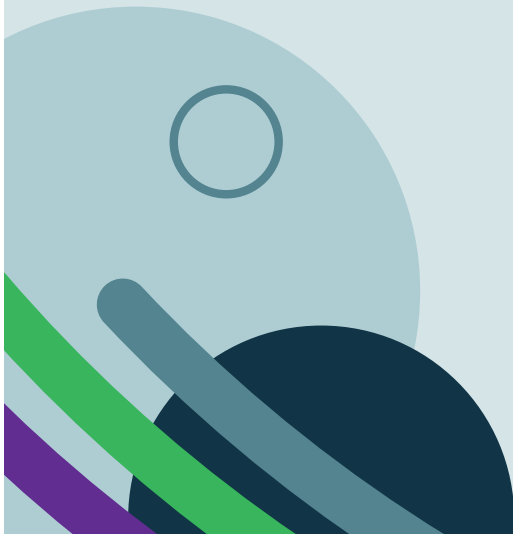


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PEDIATRIC
ONCOLOGY
UNIT



COORDINATES

3001, 12^e avenue Nord
7th floor, wing 4, room 7450 Sherbrooke,
Québec J1H 5H3

TELEPHONE

819 346-1110,

To schedule an appointment: **Ext. 15129**

To discuss a health issue:

Ext. 13698

To ask a question regarding a drug
or medication: **Ext. 13640**

BUSINESS HOURS

Monday to Friday from 8:00 a.m. to 4:00 p.m.

PROCEDURE FOR AN EMERGENCY OUTSIDE BUSINESS HOURS

Dial **819 346-1110**, press **0**, and ask to speak
to the operator to contact the pediatric
hematologist/oncologist on duty. You will
be put into contact with this physician.

WHO IS THIS GUIDE FOR?

This guide is intended for children, teenagers,
and young adults suffering from a pediatric
cancer as well as their families.

We have developed this tool to guide you
through the precautions to be taken during
chemotherapy treatments to reduce the risk
of complications and to optimize treatment
efficacy.

The purpose of this guide is also to support
you in managing the side-effects of
chemotherapy,

which might be experienced over the course
of the treatments. It is important for you to
know how to manage them to reduce their
impact on your daily life.

Please note that despite a close follow-
up and following all of the precautions,
complications can still occur.

Remember that our team is available to
answer your questions.

A TYPICAL DAY

On the day of your child's appointment with the pediatric hematologist/ oncologist:

- Arrive at the clinic at the scheduled time.
- Register at the reception desk and then remain in the waiting room until you are called.
- The nursing staff will call your child to take their vital signs, weight, and height before drawing a blood sample.
- During the blood analysis and examinations, you can remain in the waiting room or in another room as instructed by the team.
- The pediatric hematologist/oncologist will examine your child as soon as it is their turn and will inform you of the blood test and examination results.
- Chemotherapy, transfusions, medications and other specific care or treatments may be administered once the physician has given their approval.
- Once the treatment or care is completed or if your child does not require them, you will need to go to the reception desk to confirm your child's next appointment date.

SERVICES PROVIDED

- Electric vehicles on the 7th floor to go to and from the appointments (for children aged 10 years and under)
- Televisions
- Educational support provided to primary and secondary school students by a teacher with the Centre de services scolaire de la Région-de-Sherbrooke
- For Leucan clients:
 - kitchenette with snacks and beverages
 - toaster, microwave oven, refrigerator, freezer, coffee maker, kettle
 - rocking chairs
 - video game console
 - television with DVD player
 - game room
 - massage therapy





Leucan is a partner association dedicated to supporting children with cancer and their families from the moment of diagnosis.

MISSION

To promote the recovery and well-being of cancer-stricken children and their families by providing distinctive and adapted assistance and support services during and beyond all stages of the illness and its effects.

This association offers its members a wide range of services:

- assistance
- emotional support
- financial assistance
- referral services
- massage therapy services
- hospital-based recreation activities
- social and recreational activities
- school-based awareness-raising activities and assistance services

To become a member, you need to authorize the caregiving team to send your coordinates to Leucan. Afterward, a family officer will come to meet you at the pediatric oncology unit or hospital unit to explain all the services available to you.



Who does what at the clinic?

Administrative officer:

- Welcomes clients and gives appointment dates.
- Manages and schedules appointments.

Nursing assistant:

- Takes vital signs.
- Takes blood samples.
- Inserts and removes peripheral lines (intravenous catheter).
- Administers medications orally, subcutaneously and intramuscularly (excluding chemotherapy).
- Assists the pediatric hematologist/oncologist with certain procedures (e.g., lumbar puncture).

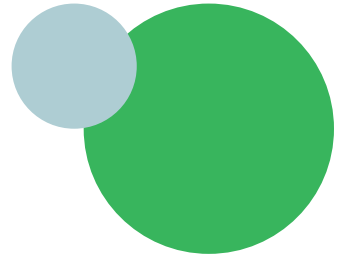
Nurse:

- Takes blood samples via central catheters.
- Assesses signs and symptoms, and answers questions.
- Administers chemotherapy, blood products and other medications.
- Monitors side-effects when administering treatments.
- Changes dressings as needed.

Pivot nurse:

- Manages the symptoms and concerns over the phone or telehealth (video-conferencing on Teams).
- Coordinates visits to the emergency department.
- Manages diagnostic and radiology exams in collaboration with the medical team.
- Conducts initial assessments and provides patient education regarding the oncology treatments with the user and their family.
- Conducts joint follow-ups and facilitates transfers between hospitals.
- (CHU Sainte-Justine, Montreal Children's Hospital, St. Jude Children's Research Hospital, Boston Children's Hospital).
- Refers to professionals when needed: social work, physiotherapy, nutrition, psychology, etc.
- Completes the forms requested by the parents' employers, the school, and government authorities.

Note: The pivot nurse might also be called upon to perform tasks assigned to nurses.



Assistant head nurse:

- Coordinates care (e.g., transfers between the pediatric and pediatric oncology units).
- Manages the procedures and guidelines related to administering the chemotherapy protocols in the clinic and during hospitalizations.
- Ensures the safety and quality of care.
- Manages staff and complaints in collaboration with the department head.

THE MEDICAL TEAM

Pediatric hematologist/oncologist

- Acts as the attending physician for the cancer diagnosis.
- Prescribes exams and treatments.
- Meets with the children and evaluates them during medical appointments.

Note: Medical residents (physicians undergoing specialized training) may assist the attending physician.

Pediatric oncology pharmacist:

- Provides patient education regarding chemotherapy treatments.
- Manages side-effects jointly with the caregiving team.
- Validates and prepares chemotherapy treatments.
- Answers questions regarding side-effects and methods for administering medications.

Beneficiary attendant and service aide:

- Transports the patient in a wheelchair or on a stretcher to examinations or their hospital room.





Treating cancer is teamwork

Cancer treatment involves many health care professionals working as an interdisciplinary team. Each attending team member brings their own unique expertise which they pool to provide personalized, quality care.

The caregiving team is there to provide you with the necessary information and to answer your questions.

The team provides emotional support and assists you throughout the care episode.

Other professionals might join the team during the treatment to provide your child with the best possible care and to meet your needs.

As parents, you have an important role to play on our team as you are the experts on your child.

You know him better than anyone else and it is you whom they trust most. Help us to earn your child's trust so that they are comfortable with our team. You are also on the front line to notify us of side-effects, concerns, and issues experienced by your child.

Communication between the parents and the caregiving team is an invaluable tool we rely on throughout the episode of care.

An illustration on a light green background featuring a man in a maroon shirt and dark pants holding a large light blue circle above his head. A dark blue dog is jumping towards a small green circle. A woman in a white shirt and teal shorts is walking towards the right. Several other circles in white, green, and light blue are scattered throughout the scene. A large, light green semi-circle is at the bottom of the illustration area.

CHEMO- THERAPY



WHAT IS CHEMOTHERAPY?

Chemotherapy, often abbreviated as “chemo”, is a drug, or a combination of antineoplastic agents, administered to destroy cancer cells or to prevent them from multiplying. Cells that multiply rapidly, including cancer cells, are sensitive to chemotherapy.

Antineoplastic agents are administered to cure, control or alleviate cancer and its symptoms.

The pediatric oncologist prescribes the best treatment according to specific factors related to the diagnosis.

There are several methods to administer chemotherapy, but the routes used in the clinic are as follows:

Intravenous (IV)*: Administered through a vein via a venous access device (catheter);

Oral (PO): Administered in tablet or liquid form through the mouth;

Sub-cutaneous (SC): Administered into the skin;

Intramuscular (IM): Administered in a muscle;

Intrathecal (IT): Administered directly into the canal filled with cerebrospinal fluid in the lumbar region.

Note: The intrathecal procedure is performed under sedation by a dedicated team. The child may return home on the same day.

No cancers require all of these methods of administration.

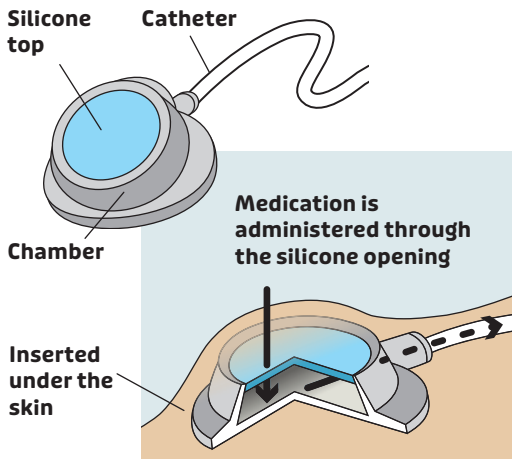
Types of intravenous catheters

Chemotherapy treatments require many blood draws and the frequent administration of drugs and intravenous (IV) fluids. To make the process and easier and safer, your child will need to have a central catheter installed for the duration of their treatments. The type of device selected will depend on the length and type of treatment as well as your child's lifestyle habits.

TYPES OF DEVICES

Port-A-Cath (PAC)*: A port is implanted beneath the skin, usually in the upper thorax. A catheter attached to the port is inserted into a large vein and extends near the heart.

This usually brief procedure is performed in the radiology room under sedation. Your nurse will provide the necessary care and will also inform you of the specifics and precautions to take.

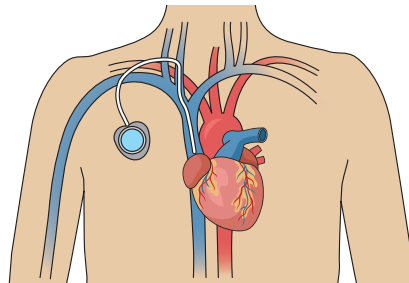


During the appointments, the nurse inserts a special needle (Huber needle) which is secured to the port, enabling the drawing of blood and the administration of IV products.

About 45 minutes before arriving at the clinic: Apply a local anesthetic cream (e.g., Emla®) on the skin and cover it with an occlusive dressing such as Tegaderm™ or a plastic wrap (e.g., Saran™) over the cream.

This process numbs the skin and reduces pain when the needle is inserted and afterward.

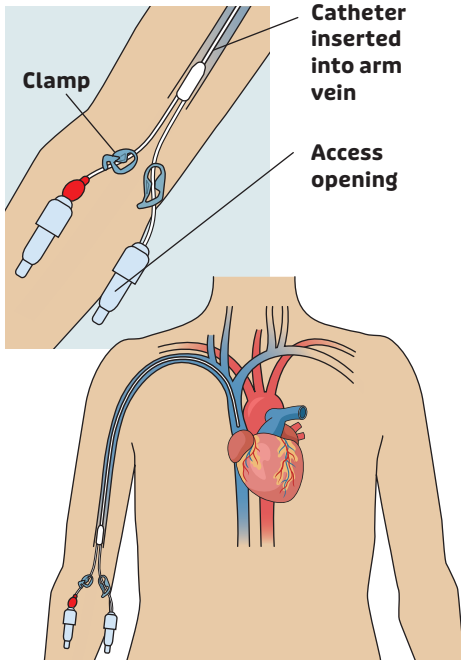
Maintenance: The nurse will irrigate the device every 4 to 6 weeks.



PICC-line: A catheter is (usually) inserted into the vein of an arm and secured with sutures (stitches) and a bandage. This normally brief procedure is performed in the radiology room under sedation. Your nurse will provide the necessary care and will also inform you of the specifics and precautions to take.

During appointments at the clinic, the nurse will draw blood and administer the IV products through the PICC line. The dressing is changed and the skin is cleaned minimally once a week.

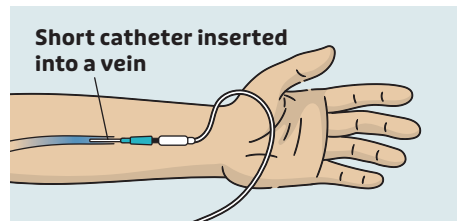
Maintenance: The nurse cleans the skin and changes the dressing.



Peripheral intravenous catheter (Insyte^{MD}/Site IV):

This short catheter is inserted into a vein in an arm by the nurse at the clinic. During radiology or other exams, an Insyte™ line might be installed for the duration of the exam. In some cases, chemotherapy might also be administered via a peripheral intravenous catheter.

During appointments, it is installed before the treatment or exam, and it is removed on the same day as the procedure.



IS CHEMOTHERAPY PAINFUL?

The answer is no. The administration of chemotherapy is not painful in itself.

If there is pain at the catheter's insertion site, or on the arm, shoulder, neck or thorax while the treatment is being administered, immediately notify the nurse.

However, injections may be necessary at certain times during the child's trajectory, and this might cause discomfort. Anesthetic cream will be applied before the procedure to reduce discomfort, but the child may still have some fears. Therefore, you have an important role to play in reassuring and consoling your child.

SIDE EFFECTS AND SYMPTOM MANAGEMENT





SIDE EFFECTS

Chemotherapy can cause various side-effects. It targets cells that divide rapidly, such as cancerous cells. However, the body also has healthy cells that grow rapidly. When the treatment destroys the latter, side-effects can occur. Examples include cells in the mouth, intestine, and bone marrow, as well as cells responsible for hair growth.

Most side effects are reversible and will disappear between the end of the treatments and the weeks thereafter.

BONE MARROW

Bone marrow is found inside most bones. Blood cells - notably red blood cells*, white blood cells* and platelets* - are produced within the bone marrow.

When the bone marrow undergoes medullary aplasia*, it means that it is not producing a normal number of blood cells. The cell count reaches its lowest level between 7 and 10 days after the start of a chemotherapy cycle*.

ANEMIA*

Red blood cells* are the cells that transport oxygen throughout the body. A decrease in these cells is called anemia*. To counter anemia, it is sometimes necessary to administer a blood transfusion.

Anemia* can cause the following symptoms:

- Fatigue
- Shortness of breath
- Pale skin
- Dizziness
- Irritability
- Increased heart rate
- Headache

What to do in case of anemia*?

- Balance activities and periods of rest.
- Take short naps.
- Engage in physical activity according to your tolerance level.
- Avoid activities in high-altitudes.

THROMBOCYTOPENIA*

Platelets* are cells that help blood clot to stop bleeding. A reduced platelet count is known as thrombocytopenia*. To counter this decrease, it is sometimes necessary to administer a platelet* transfusion.

Thrombocytopenia* can cause the following symptoms:

- Increased bruising
- Bleeding from the gums or nose
- Small red spots (petechiae) on the skin
- Dark stools (black)
- Blood in urine

Note: If bleeding lasts more than 15 minutes, call the pediatric oncology clinic or contact the physician on duty.

What to do with a case of thrombocytopenia*?

- Brush your teeth with a soft-bristle toothbrush.
- Do not floss.
- Do not engage in physical activity that poses a risk of injury.
- Do not take blood-thinning medications (e.g.: Advil®, Motrin®, Aspirin®, Naproxen®, Aleve®).
- Apply firm pressure for 5 to 15 minutes, raising the injured limb (if possible) when dealing with an injury with bleeding.

For nosebleeds, keep the head upright and apply firm pressure to the nostrils and ice on the neck or the bridge of the nose.

NEUTROPENIA*

White blood cells*, including neutrophils, play a role in defending the body against infections, bacteria, viruses, and other germs. A reduced white blood count exposes the body to a risk of infection called neutropenia*. To counter the decrease in white blood cells* and to stimulate their production*, it may be necessary to inject a granulocyte colony stimulating factor (G-CSF or granulocyte transfusion).

The signs and symptoms of an infection are as follows:

- Fever
- Chills, sweating
- Difficulty breathing
- Coughing, sputum
- Sore throat, headache
- Earache or discharge from the ear
- Runny nose or eyes
- Diarrhea
- Difficulty urinating
- Burning sensation when urinating
- Cloudy urine
- Blood in urine
- Foul-smelling vaginal discharge
- Redness, inflammation or swelling of the skin or mucous membranes
- Any other new symptom

IMPORTANT

If you notice a deterioration in your child's health status, immediately go to the nearest emergency department or call emergency services. The medical team that will manage your child's case will contact the hematologist-oncologist at Hôpital Fleurimont.

RECOMMENDATIONS REGARDING THE RISK OF INFECTION DURING CHEMOTHERAPY TREATMENTS

- Take your child's temperature at the onset of a sign or symptom of infection.
- Take the oral or axillary temperature only as rectal temperature measurement could cause bleeding or an infection.
- Never administer a suppository.
- Take the doctor-prescribed antibiotic 1 hour before each dental appointment.
- Adopt sound hygiene habits:
 - Wash hands regularly.
 - Maintain good oral hygiene.
 - Wash the skin daily.
- Maintain a clean environment.
 - Frequently clean floors and surfaces as well as the toys and electronic devices used by the child.
 - Wash sheets, clothes and plush toys in warm water.
 - Change bed linen frequently.
- Avoid contact with sick persons:
 - Avoid crowds during periods of neutropenia*.
 - Avoid contact with individuals who show signs of infection.
- Ask household members who are sick to wear a mask when they are in the same room as the child.

IMPORTANT

Always take the child's temperature before administering acetaminophen.



FEVER

A temperature above 38°C is considered to be a fever. Fever needs to be taken seriously as it could be a sign of infection. During the oncology treatments, fever is a medical emergency and must be managed immediately.

If your child has fever (38°C or higher) during their treatments:

- **Immediately notify** the caregiving team at the clinic (Monday to Friday from 7:45 a.m. to 4:00 p.m.) or the physician on duty. We will inform you where you need to go.
- Do not administer acetaminophen (Tylenol®) or ibuprofen (Advil®/Motrin®) before consulting at the hospital.
- Bring a bag with a few personal belongings in case you need to spend a few days at the hospital.
- Apply Emla® cream before leaving your home if your child has a Port-A-Cath*.

FATIGUE

Many children with cancer suffer from fatigue before, during and after their treatments. Depending on their age and stage of development, children won't express it in the same manner. Many factors can cause fatigue.

Causes of fatigue:

- Treatment administered
- Anemia*
- Eating insufficiently
- Fever
- Pain
- Lack of sleep
- Worrying
- Lack of physical activity

General advice:

- Encourage the child to engage in one physical activity per day.
- Relieve the pain.
- Offer them snacks regularly throughout the day.
- Establish a bedtime routine.

NAUSEA AND VOMITING

Nausea and vomiting are common side effects associated with cancer and cancer treatments. The intensity and frequency of nausea and vomiting depend on several factors, including the type of treatment administered. Many medications are available and will be prescribed to your child to prevent and treat these symptoms.

Note: Notify the physician or nurse if the vomiting lasts for more than 24 hours.

General advice:

- Eat small quantities more frequently.
- Try eating dry and neutral foods (e.g., toast or crackers).
- Avoid very spicy, acidic and fatty foods.
- Eat cold foods or suck on ice cubes.
- Enjoy meals in a place without strong odours.
- Let the child choose meals they enjoy.
- Take anti-nausea medication as prescribed.

What to if the child is vomiting?

- Rinse your child's mouth with salty or lemon water after they have vomited.
- Wait 30 to 60 minutes before offering them food again.
- Resume hydration, gradually increasing as tolerated.
- Reintroduce solid but light food if liquids are well tolerated.

Note: If you administered anti-nausea medication less than 30 minutes before vomiting occurred, you can administer another dose of the anti-nausea medication.

DIARRHEA

Some cancer treatments irritate the lining of the intestine and can cause diarrhea (i.e., frequent liquid stools). If your child has diarrhea, examine its colour, quantity, and frequency to inform the medical team.

What to if the child has diarrhea?

- Have light meals.
- Avoid spicy, fried and fatty foods.
- Limit sugar intake (e.g., candy, chocolate, sweetened juice).
- Eat foods that are easy to digest (e.g., bananas, rice, apple sauce, toast).
- Avoid laxative foods (e.g., coffee, alcohol, prunes).
- Maintain optimal hydration by encouraging your child to drink small amounts of liquid as often as possible.
- Notify the medical team if the child shows signs of dehydration.

Signs of dehydration:

- Dry skin and mouth
- Absence of tears
- Dark and scanty urine

ALTERED TASTE AND SMELL

The perception of taste and smell may be altered during treatments. Some foods may taste more bitter, salty or even metallic. This situation, though temporary, may be difficult for you and your child.

General advice:

- Do not force the child to eat anything they don't like.
- Offer cold, odourless foods.
- Invite the child to chew gum (depending on their age).
- If there is a metallic taste, use plastic utensils.

CHANGE IN APPETITE

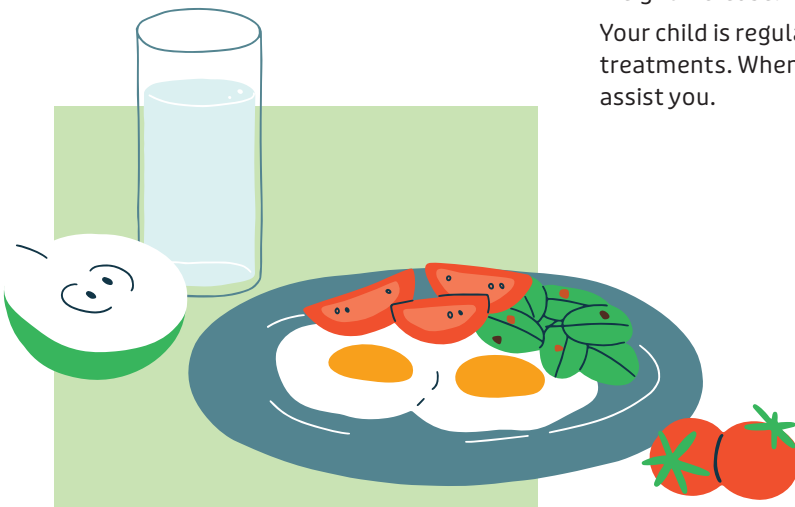
During their cancer treatments, your child might have very little appetite. Multiple factors may be responsible, but the side effects of treatments are largely the cause. It is important that your child absorb sufficient food to enable their body to develop and function properly.

Should your child have difficulty eating enough, a nutritionist can assess their nutritional status and provide additional advice.

In some cases, a nasogastric tube must be inserted through the nose to the stomach to supplement feeding with a special nutritional formula. The tube can remain in place until the child is able to eat sufficiently independently.

Conversely, certain medications can increase the child's appetite, causing a temporary weight increase.

Your child is regularly weighed during the treatments. When needed, a nutritionist can assist you.





LESIONS IN THE MOUTH

Some chemotherapy medications can cause inflammation in the mouth, resulting in sores such as ulcers or oral thrush. Usually, these lesions, which appear between 5 and 14 days after the start of the treatment, are treatable.

Signs and symptoms:

- Redness in the mouth
- Pain
- White patches
- Sores

Prevention:

- Brush teeth after each meal and before bedtime (ideally).
- Rinse mouth after each brushing.
- Do not use alcohol-based mouthwash; use the homemade recipe instead.
- Do not floss if the gums bleed easily.
- Drinks plenty of liquids.

Homemade mouthwash:

Boil 1 cup of water, allow it to cool, and combine with $\frac{1}{2}$ teaspoon of salt **OR** $\frac{1}{2}$ teaspoon of baking soda.

What to do if there are mouth lesions?

- Use a straw when drinking.
- Avoid spicy and acidic foods.
- Eat food cold or at room temperature.
- Eat tender, mashed, and finely chopped food.
- Avoid dry and hard food.
- Use the physician-prescribed mouthwash several times a day.
- Take your child's temperature to ensure they don't have fever. If there is no fever, you can administer acetaminophen to provide pain relief.
- Notify the physician during your clinical appointment.
- Notify the medical team if moderate pain hasn't been relieved by acetaminophen.

SENSITIVE SKIN

Cancer treatments can cause dry skin, rendering it more sensitive. It is important to protect your child's skin from the sun's rays as it becomes more sensitive to sunburn.

Prevention:

- Apply a sunscreen with SPF 30 or higher and, especially during prolonged activities, every 2 hours during outdoor activities (even in winter).
- Wear clothes that cover and protect the skin.
- Choose outdoor activities that can be done in the shade.
- Hydrate the skin with unscented moisturizing cream after bathing or showering.
- Make sure your child's skin is properly protected when the area is covered with snow, concrete or water, or at high altitudes where UV ray concentrations are higher, increasing their impact on the skin.

HAIR LOSS (ALOPECIA*)

Some cancer treatments can cause temporary hair thinning or hair loss. This situation usually occurs gradually 10 days after the administration of the treatment. The hair sometimes grows back before the end of the treatments, but this occurs between 6 and 8 weeks after the treatments have ended. The colour and texture of the hair might be different once it grows back.

What to if there is hair loss?

- Speak to your child about potential alternatives until their hair grows back (e.g., wearing a hat, a tuque, a baseball cap, a scarf, or a wig). Leucan offers a wig service. Leucan's family officer can inform you regarding this matter.
- Some children prefer to keep their hair short or to shave it off before it falls. Many children decide to keep their heads shaved.

FERTILITY ISSUES

Oncology treatments can cause problems with the reproductive system. The impact of cancer therapy depends on the child's age at the time of the treatments, the organ affected by the cancer, and the type and dose of the treatment administered.

Procedures such as egg or sperm conservation exist to maintain fertility. When needed, the physician may request a consultation with the fertility team.

Potential issues:

IN ADOLESCENT GIRLS:

- Irregular periods or complete interruption of menstruation
- Onset of menopause-related symptoms
- Hormonal changes
- Temporary or permanent infertility

Note: If the teenager believes they are pregnant, the medical team must be notified as soon as possible.

IN ADOLESCENT BOYS:

- Decrease in sperm count and vitality
- Delayed puberty
- Temporary or permanent infertility

IMPORTANT

The effects of chemotherapy treatment on the mother can affect the unborn or breastfed child. All those of reproductive age must use double contraceptive during sex to prevent pregnancy and to protect their partner during the treatment and until 6 months after it has ended.





PRECAUTIONS FOR CHEMOTHERAPY

SCHOOL

Your child might be removed from school during the diagnosis or during part of the treatments. The length of the withdrawal from school depends on the type of cancer, treatment administered, and side-effects. It is important to notify the school as soon as possible of your child's medical condition.

Services offered by our team:

- Letter of absence from school that must be provided to the school's administration.
- Meeting with a teacher at the beginning of the treatments to plan teaching time around clinical appointments or during a hospitalization. This person will also liaise with the child's school to identify the objectives, assignments, and exams to complete. The teacher will also handle the request if the child needs to be home schooled.

DAYCARE

Your child might be removed from daycare during the diagnosis or during part of the treatments. The length of the withdrawal from the daycare depends on the type of cancer, treatment administered, and side-effects. It is important to notify the daycare as soon as possible of your child's medical condition.

CHICKENPOX

If your child has never had chickenpox or has not been immunized for it, avoid all contact with anyone with chickenpox. If your child is exposed to chickenpox during their treatments, immediately notify the medical team as an antibody treatment may be required.

When your child returns to school following their treatments, ask the teacher, nurse, or school nurse to inform you promptly if your child comes into contact with anyone who has chickenpox.

NUTRITION AND DIET

Throughout your child's treatments, their immune system will be weakened by both the cancer and the therapy administered. The body will have fewer defences to combat the bacteria, viruses, and parasites that might be in their food. Germs in food can cause your child to suffer a foodborne infection. Preventive measures therefore need to be taken.

Preventing foodborne diseases:

CHOOSE:

- Pasteurized products (dairy products, honey, fruit juice)
- Pre-packaged, vacuum-sealed cold cuts and dairy products rather than over-the-counter products at the grocery store
- Certified meats
- Bulk products must be cooked before they can be eaten
- Thoroughly washed fruits and vegetables

Note: Check the expiry dates to ensure food freshness.

AVOID:

- Raw meat and animal protein
- Green tea
- Buffets and milk bars
- Probiotics
- Grapefruit and grapefruit juice

TOBACCO, DRUGS AND ALCOHOL

A healthy lifestyle is recommended for everyone, especially those who have had cancer and chemotherapy treatments. They are more sensitive to the toxic effects of tobacco use and are at greater risk of developing tobacco-related cancers.

Beware of drug and alcohol consumption during treatments: Interactions with chemotherapy medications could affect their efficacy or toxicity. If tobacco, drugs or alcohol are consumed, speak to the caregiving team.

MANAGEMENT OF BODILY FLUIDS

Your child's chemotherapy treatment is cytotoxic, meaning it destroys certain cells. The body will gradually eliminate a part of the medication. Thus, some bodily fluids such as urine, stools, vomit, blood, vaginal secretions and sperm must be handled with care. Those close to the child undergoing chemotherapy must remain as little exposed as possible to these cytotoxic substances.

Precautions to take from the beginning of chemotherapy to 4 days after the final treatment:

- If the child can use the toilet bowl:
 - Urinate in the seated position to avoid splashing.
 - Close the toilet seat cover and flush twice.
 - Clean the bowl after each use.
 - Regularly clean the toilet bowl and surrounding floor..
- If the child wears diapers:
 - Wear gloves when changing their diapers.
 - Use a barrier cream between urinations and bowel movements to protect the skin.
- Wear gloves when cleaning or handling vomit, blood, stools and/or urine.
- Wash clothes and linen soiled with bodily fluids separately in hot water.
- Wash your hands if they touched bodily fluids.
- Avoid handling bodily fluids if you are pregnant or breastfeeding.



NATURAL HEALTH PRODUCTS AND OTHER DRUGS OR MEDICATIONS

Some natural or plant-based products can impede the cancer treatment. Some may contain bacteria and increase the risk of infection while others reduce the efficacy of the chemotherapy or increase the risk of side effects. If you wish to give your child natural products, it is imperative that you speak to the caregiving team.

Speak to your physician before giving your child aspirin or ibuprofen (Advil® or Motrin®). These medications might be contraindicated.

VACCINATION AND IMMUNIZATION

The flu vaccine is recommended and will be given to your child at the Charles-Bruneau pediatric oncology unit. However, some vaccines need to be administered at specific times during the treatment; others might be hazardous when administered during chemotherapy treatment. That is why we ask you to speak to the physician before having your child vaccinated at any time throughout treatment.

PETS

If you have pets, you will need to take certain precautions to prevent infections from being transmitted to your child.

Recommendations:

- Make sure your child does not come into contact with animal excrement.
- Wash the child's hands if they have touched or played with the animal or if the latter has gone outside.

RENOVATIONS

It is not recommended to renovate your house during your child's treatments as airborne contaminants may be released (e.g., fungi, bacteria, etc.), even if you are installing new materials.

WOOD HEATING

If you are heating your home with wood, do not leave damp logs in common living areas; instead, seal the logs in a container when storing them.



AFTER THE TREATMENTS

MONITORING OF YOUR CHILD'S HEALTH STATUS

Once the cancer treatments are completed, **regular appointments will be scheduled to monitor your child's health.** The frequency and length of the follow-ups will depend on the type of cancer and oncology treatments administered.

The withdrawal of the central catheter will be discussed with the caregiving team once the chemotherapy treatments have ended. Post-treatment follow-ups will include imaging exams, blood tests, and regular check-ups with the pediatric oncology team.

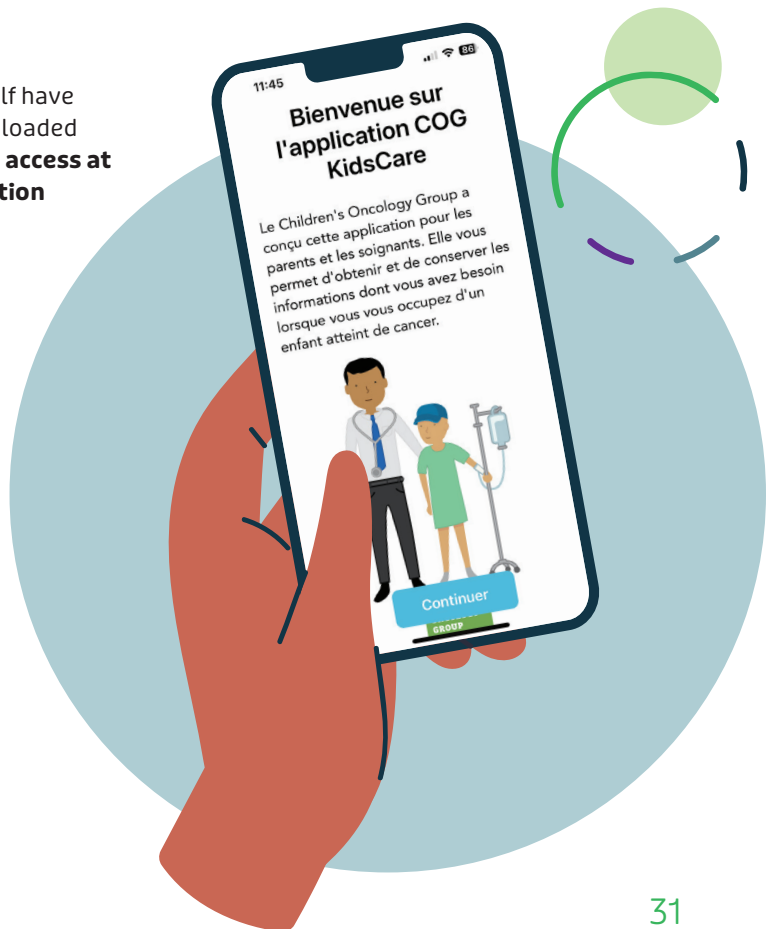
RESOURCE AVAILABLE TO YOU

COG KIDSCARE APP

Those close to you and you yourself have access to an app that can be downloaded onto your phone or tablet **to have access at all times to most of the information contained in this guide.** The COG KidsCare app allows you to create an account, enter your child's attending hospital, and their treatments. With the app, you can regularly enter medical appointments and keep a log of important information.

Please note that the app is a supplementary tool to facilitate access to information.

The app is available for Android and iOS devices in both French and English.



APPENDIX

SIGNS AND SYMPTOMS TO BE REPORTED IMMEDIATELY

- Fever > 38°C or chills
- Changes in breathing
- New confusion or severe drowsiness
- Changes in vision
- Exposure to chickenpox or shingles
- Signs of infection at the central catheter insertion site (pain, redness, swelling, warmth)
- Moderate to severe pain unrelieved despite prescribed medications
- Bleeding that does not stop after 15 minutes

TABLE OF COMMON DRUGS AND MEDICATIONS USED IN ONCOLOGY

Brand Name	Generic Name	Oncology Indications
Ativan®	Lorazepam	Nausea and anxiety
Cesamet®	Nabilone	Nausea and pain
Décadron®	Dexaméthasone	Nausea, inflammatory symptoms, allergy symptoms, cancer
Emend®	Aprepitant	Nausea
Gravol®	Dimenhydrinate	Nausea
Kytril®	Granisetron	Nausea
Maxeran®, Metonia®	Metoclopramide	Nausea and migraines
Motilium®	Domperidone	Nausea
Stemetil®	Prochlorperazine	Nausea
Zofran®	Ondansetron	Nausea
Zyprexa®	Olanzapine	Nausea
Colace®	Docusate sodium	Constipation
Lax-A day®, Relaxa®, Emolax®	Polyethylene glycol	Constipation
Senokot®	Senna, Sennoside	Constipation
Bactrim®, Septra®, Sulfatrim®	Cotrimoxazole, Sulfamethoxazole Trimethoprim	Infection
Nexium®	Esomeprazole	Gastroesophageal reflux and stomach ulcers
Pantoloc®	Pantoprazole	Gastroesophageal reflux
Prevacid®	Lansoprazole	Gastroesophageal reflux
Zantac®	Ranitidine	Gastroesophageal reflux
Dilaudid®, HydromorphContin®	Hydromorphone	Moderate to severe pain
Neurontin®	Gabapentin	Neurological pain
Statex®, Kadian®, MS contin®	Morphine	Moderate to severe pain
Tylenol®	Acetaminophen	Mild to moderate pain
Filgrastim®, Grastofil®, Neupogen®	G-CSF	Stimulation of white blood cell production
Prednisone®	Prednisolone, Methylprednisolone	Nausea, inflammatory symptoms, Allergy symptoms
Zyloprim®	Allopurinol	Decreased uric acid levels

GLOSSARY

ONCOLOGY TERMS

Alopecia: Hair loss

Anemia: Disorder caused by a decrease in the count of red blood cells*

Medullary aplasia/Myelosuppression:
Bone marrow no longer produces normal number of blood cells

BMO: Bone marrow biopsy

Cycle: Specific period* of the protocol (A protocol* can have several identical cycles or different cycles.)

Erythrocytes/Red blood cells:
Blood cells that transport oxygen throughout the body

Excreta: Substances excreted by the body (urine, vomit, stools)

Ingesta: Substances ingested by the body (foods, liquids taken orally or intravenously)

Day in a cycle: Moment within the protocol
For example, Day 1 is the time when a cycle* begins. The total number of days in a cycle varies from one protocol* to the next.

Leukocytes/White blood cells:
Blood cells that play a role in the body's defence against viruses and bacteria.

Line of treatment: When a protocol* is initiated, it is the front line of treatment. When a protocol* needs to be changed, it becomes the 2nd line of treatment, and so on.

Micro-method/Capillary puncture:
Drawing of blood from the tip of a finger or the heel

Nadir: Lowest cellular blood count after a chemotherapy treatment

Neutropenia: Decrease in the number of neutrophils (type of white blood cell)

PAC/Port-A-Cath: Central line through which the cancer treatment is administered and blood draws taken

Pancytopenia: Decrease in the number of blood cells (red blood cells*, white blood cells*, platelets*)

Platelets/Thrombocytes:
Blood cells that help with clotting

LP/Lumbar puncture: Procedure in which a small amount of cerebrospinal fluid is drawn from the spinal canal

Chemotherapy protocol:
Predetermined treatment plan chosen by the oncologist based on the stage and type of cancer

IV drip: Fluid administered via intravenous perfusion

Thrombocytopenia: Decrease in the number of platelets* in the blood

Venous line/Catheter: Tiny catheter inserted into a vein to administer a product



REFERENCES

Canadian Cancer Society (cancer.ca)

Association of Pediatric Hematology/Oncology Nurses (aphon.org)

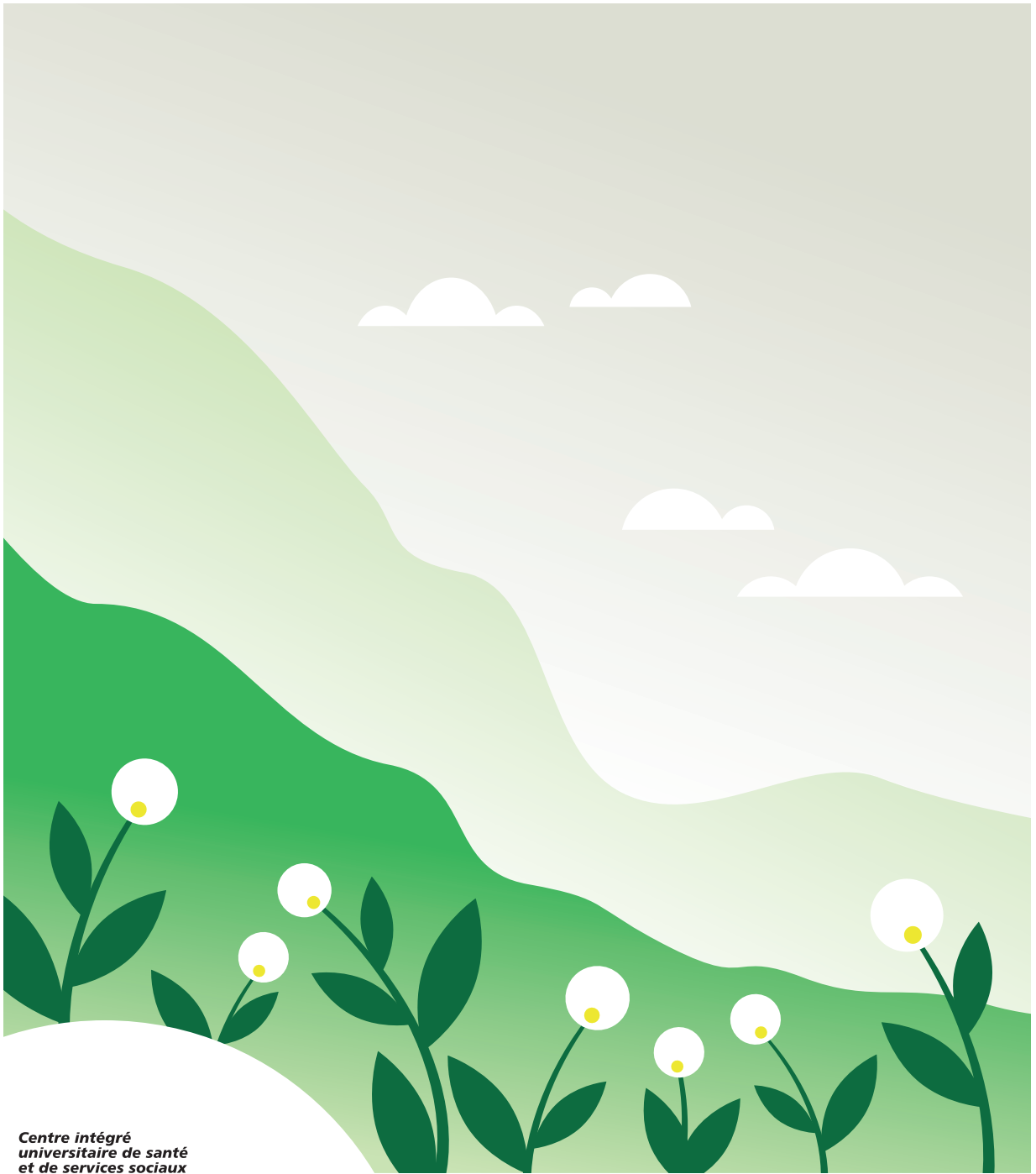
Together, St. Jude Children's Research Hospital (together.stjude.org/en-us/)

Children Oncology Groupe (childrensoncologygroup.org)

Leucan (leucan.qc.ca/en/)

AboutKidsHealth (aboutkidshealth.ca/)

Childhood Cancer Canada (childhoodcancer.ca)



**Centre intégré
universitaire de santé
et de services sociaux
de l'Estrie – Centre
hospitalier universitaire
de Sherbrooke**

Québec 

2024
Une version française est disponible sur demande.