Chemotherapy is often administered intravenously. In such cases it is injected directly into the veins. This requires attaching a flexible catheter (changed frequently) to your forearm. This device is known as a peripheral line, since it is placed on a limb.

It is sometimes necessary to resort to a larger vein found under the collarbone (subclavian) or at the base of the neck (jugular) using a catheter that stays in place while you are in hospital. This long catheter is called a central line, since its tip is positioned at the entrance to the heart.

The implantable port is a central access device made to remain in situ for several years. It comprises housing implanted under the skin into which a needle is inserted when the device is in use. This method preserves the veins and avoids repeated needle sticks. It can be removed on the advice of the oncologist and the patient, and once the treatment and the monitoring follow-up is complete.

Chemotherapy may adversely affect the skin and the underlying tissue. When substances leak from the vein by accident, we speak of extravasation. In such a case, the medical team will begin immediate treatment to limit possible local lesions.

Careful monitoring of the perfusion is essential. You can help to ensure your own comfort and safety by following the advice and noting the signs mentioned below.

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**INFO**

Certain types of chemotherapy are available in the form of tablets to be swallowed. Their effectiveness and their side-effects are identical to those of other treatments.

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**Some advice**

- Move about as little as possible while the chemotherapy is being administered.
- Avoid pulling on the tubing so as not to displace the catheter or the needle.
- Protect the catheter dressing from splashes and do not dip it in water.
**Signs to be noted**

- Pain, heat, prickling or a feeling of dampness around the vein during chemotherapy.
- Swelling of the skin, redness or discharge around the point of insertion of the IV.
- Feverishness, shivering, breathing difficulties.

**Tell the medical team immediately if any of these symptoms occur.**

Call the medical team also if

- The alarm on the device delivering the chemotherapy goes off.
- The dressing comes away or the tubing is accidentally pulled from the vein.

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**N.B.**

Ligue Suisse contre le cancer brochure, *Les traitements médicamenteux des cancers* [Medicinal treatments for cancer]. Specific documentation on implantable venous access devices or ports is available on request. The medical staff in any of the HUG oncological departments can provide you with information.
Your doctor may prescribe an anti-cancer treatment for you in the form of pills or capsules to be taken by mouth (orally). Such treatments are classic chemotherapies or targeted therapies. They have the same side effects as those administered intravenously. This medication must be handled carefully.

Some advice

- Determine when to take the medication in accordance with the instructions given. Taking it when fasting or during a meal may make a difference to the actual dose absorbed.
- Take your treatment with water at room temperature.
- It is recommended that you not cut, crush or chew your pills. That changes how they are absorbed and may damage the mucous membrane of the mouth or digestive tract.
- Wash your hands with soap and water if you have touched the pills with your bare hands. Your caregivers may wear rubber gloves to handle them.
- Tell your oncologist if you have forgotten one or more doses or if you have vomited after taking them. Do not take a replacement dose on your own initiative.

INFO

There are some simple ways to help you not to forget when to take your pills: setting the alarm on your clock, telephone or watch, keeping your pills near your toothbrush, putting a glass of water on the bathroom shelf, using a pill dispenser, keeping spare pills in your handbag (useful on a journey).
Some advice

- Drink more than usual. It is recommended that you increase your usual intake of liquids (herb teas, water etc.) by at least half a litre.
- Keep your pills in a container everyone can identify. Do not leave them within reach of children.
- Prevent nausea due to treatment by taking prescribed anti-nausea medication.

INFO

In the public’s eyes oral treatment seems rather banal and harmless. That is not the case. This new form of medication for the treatment of cancer is still little understood, but is quickly catching on.

N. B.

Ligue Suisse contre le cancer brochure, *Medicinal treatments for cancer* [Medical treatments in cancer cases].
About half of the patients who have cancer undergo radiotherapy. The radiation used is invisible and painless. Its aim is to destroy the cancer cells.

The treatment will be adapted to your specific needs. In general it lasts from about two to seven weeks. Sessions are scheduled from Monday to Friday and take a few minutes.

The radio-oncology team is composed of doctors, nurses, physicists and technicians. Before you begin your treatment, you will have a consultation with the radio-oncology doctor. The next stage in your medical care is to have a radiotherapy planning session, when a scanner is used in order to ensure that the cancer is targeted as precisely as possible. The images obtained make it possible to calculate precisely the trajectory of the radiation. This examination may take a long time; have some tranquillizing or analgesic medication with you. The actual radiotherapy sessions will take place following the initial planning session and are much shorter, only lasting a few minutes.

The side effects of this form of therapy vary from one patient to another. They will depend on the dose of radiation administered, the localization of the treatment and your body’s reactions. They will appear several days or several weeks after the beginning of your treatment and take the same amount of time to disappear once it is over. The most frequent side effect is a local inflammation of the skin and the mucus membrane.

**Procedure for each session**

**At home**

Do not put any cream or lotion on your skin for two hours before the radiation session.

**In the radiotherapy room**

You will be placed on the radiotherapy table in a specific position which will always be the same. You must stay quite still. The part of your body to be treated will be uncovered as for a normal x-ray.

You will be alone in the room during treatment, but you will be in constant audio-visual contact with the staff by means of an interphone and a camera. The room will be lit throughout the session.
Some advice

- Wash the radiated portion of your body with water and, if necessary, with a PH-neutral soap. Pat yourself dry without rubbing. Avoid using toilet water, perfume or deodorant on the treated area.
- Wear loose-fitting, comfortable, natural-fibre clothing. Synthetic textiles can cause irritation.
- Avoid exposure to sunlight during your treatment. After treatment protect the irradiated part for one year with a total sunblock. Follow the advice of the medical care team in choosing a suitable cream.
- The radio-oncology team is there to support you and to answer your questions during treatment.
- If you are tired, anxious or in pain, the nurses will suggest relaxing massage or reflexology sessions. A dietician attached to the service will adapt your diet if need be.

N.B.

The brochure, *Traitement par radiothérapie, des réponses à vos questions* [Radiotherapy treatment, your questions answered], which you will receive at your first appointment.
Female (oestrogen) and male (androgen) sex hormones can stimulate the growth of certain cancers of the breast or the prostate. These are called hormone-sensitive or hormone-dependent cancers. In such cases your doctor will prescribe an anti-hormone treatment (wrongly referred to as a hormone treatment) which either stops your body making the hormones or blocks their action, thus preventing them from stimulating the growth of tumours.

Depending on your situation, treatment is prescribed for several years in one of the following forms:

- A pill a day
- A subcutaneous injection once a month, every three months or every six months
- An intramuscular injection once a month

The side effects can be compared to the symptoms of the menopause or andropause: hot flashes, night sweats, dryness of the skin or the mucous membrane, loss of libido, mood swings, muscle loss particularly for men, acceleration of osteoporosis.

Certain medications also cause joint pain, thrombosis or vaginal bleeding. If any of these symptoms occur, tell your doctor about it without delay.

You are advised not to become pregnant during treatment. Discuss this with your doctor.

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**INFO**

Beware of self-medication: some ‘natural’ medicines or lubricating gels contain hormones or substances that stimulate the production of hormones. That is also the case with certain foodstuffs such as soya, sage, rye, flaxseed and pulses.
**Some advice**

- Take the treatment at precise and regular intervals. That way the dose in your blood remains constant. If you have forgotten to take your oral medication and more than 12 hours have gone by, take the next pill at the usual time without making up for the missed dose.
- Regular physical activity will prevent muscle loss and osteoporosis.
- Eat a balanced diet to ensure sufficient calcium and protein intake to combat osteoporosis.

**INFO**

Use simple reminders to help you not to forget your medicine: set the alarm on your clock, telephone or watch, keep your pills near your toothbrush, put a glass of water on the bathroom shelf, use a pill dispenser, keep spare pills in your handbag (useful on a journey).

**N. B.**

The leaflet *Sexualité et fertilité* [Sexuality and fertility] for additional advice about intimate relations.
Fatigue is a frequent symptom, linked to your cancer and its treatment. It may be increased by the side effects of the medication, by anxiety and by disturbed sleep. Patients describe it as a sensation of extreme, perpetual exhaustion that is not alleviated either by sleep or rest. It may also manifest itself as despondency, difficulty concentrating or thinking, or a loss of willpower. To assess your level of tiredness, a scale from 0 (no fatigue) to 10 (the most extreme imaginable) is used.

**Some advice**

- Save your energy and keep it for what matters most to you.
- Delegate difficult tasks or break them down over the course of the day or week, and set priorities.
- Ask help of your relatives, friends, caregivers and support systems (you can have a home help).
- Organize your day by alternating activity and rest.
- Make sure you eat a sufficient and balanced diet. Drink enough water.
- Keep up whatever physical activity you are capable of.
- Maintain your social life and do things you enjoy.
- Keep to your day/night routine as far as possible. Sleeping pills prescribed by your doctor may help.

Tell your doctor, your caregivers or your relatives and friends of your concerns. With their help you will find ways to get through these difficult moments. Sometimes you may need the help of a professional psychologist.
Additional ways of dealing with the problem

Relaxation and massage can reduce your feelings of tiredness and refresh you (ask your doctor for his approval). Yoga and relaxation are a good way to combat anxiety, stress and trouble sleeping. Valerian or hops can improve the quality of your sleep.

INFO

Physical exercise lessens one’s sense of fatigue. It is a source of well-being, improves breathing and maintains muscle mass. It produces a healthy kind of tiredness and restorative sleep and helps you to recover confidence in your body and your physical capacity. The best way to prevent tiredness is to get moving!

N.B.

The Ligue Suisse contre le cancer brochure, Fatigue et cancer [Fatigue and cancer] and the leaflet, Activité physique [Physical activity].
Your cancer may bring with it pain due to inflammation, compression or infiltration of certain organs. Sometimes your treatment and the procedures involved may themselves be painful (blood tests, taps/punctures/drains, or the insertion of a catheter). In every case the pain must be addressed. It affects all aspects of your life and may delay your recovery. Report all pain, so that your treatment can be adjusted and made as effective as possible.

Different means of pain relief are available: medication, physiotherapy, blocking the nerve that transmits the pain, relaxation, hypnosis etc. In certain indications, chemotherapy or radiotherapy themselves reduce pain.

Many medications are effective in lessening pain (paracetamol, anti-inflammatories, opiates). The choice of treatment depends in particular on the causes of the pain, its intensity and its characteristics, as well as your past experience.

You are the expert where your symptoms are concerned. Only you can describe your pain, which is why it is really important to speak to your medical team about it. You are essentially partners, working together to mobilize your personal resources and to explore your fears about the repercussions of the pain. We can also better pinpoint what makes the pain persist or worsen: your emotional state, your social or financial worries, your anxiety about your future etc.

HELP AVAILABLE

When the pain resists the usual treatments, a team specializing in pain consultation will examine with you the best therapeutic solution. They will intervene at the request of your doctor. Don’t hesitate to ask for them.
Additional ways of dealing with it

The touch of a masseur (with the consent of your oncologist) may modify how you perceive the pain. Self-hypnosis offers well-tested methods, and music therapy or relaxation techniques effectively distract attention from what is stimulating the pain.

Some advice

- Tell us about your pain, even if it is slight. That way we can anticipate and adapt your treatment appropriately.
- Take your reserve medication whenever necessary in accordance with the prescription (in addition to your basic pain-killing treatment). The reserve doses make it possible to match the treatment more closely to your needs.
- Tell us about any undesirable effects of the prescribed pain medication (constipation, nausea, dry mouth).
- Let the care team know if the pain persists, changes or moves. They can then adapt the treatment and find the reasons for the changes. A new pain may be a warning signal.
- Pain affects your whole being. It is increased by anxiety and may undermine your morale. Help from a psychologist can be of real benefit.

INFO

Pain that has become entrenched is harder to treat than pain that is tackled immediately. So it is important to nip it in the bud as soon as possible. If three or four doses per day of pain-killers from your reserve stock are necessary to relieve you, this means that your treatment needs readjustment.

N.B.

NAUSEA

Important information for you

Nausea is linked to your illness or the treatment you are receiving. It may occur before treatment, immediately thereafter or in the following days. Nowadays it can be better controlled thanks to systematic prevention by specific medication. In fact you will receive regular targeted sickness medication and from the first treatment cycle the dosage will be adapted to suit your needs.

Anxiety and fatigue tend to increase nausea. Tranquillizers or sleeping pills can help.

If your sickness medicine is not sufficiently strong, tell your medical team quickly, so that your basic treatment can be adjusted or back-up dosage prescribed.

Additional ways of dealing with it

Relaxation, sophrology, positive visualization, acupuncture and acupressure have demonstrated nausea-relieving benefits. Eating ginger is also effective. You can add it to your menus, take it in crystallized form or as sweets.

INFO

Going to hospital for chemotherapy may make you feel sick with anxiety (anticipatory nausea). This kind of sickness is not treated with the usual nausea medication but by relaxation therapy or tranquillizers.
Some advice

- Obey your food likes or dislikes.
- Eat cold food in preference to hot, it provokes less nausea.
- Eat little and often during the day.
- Keep a stock of medication and take it if you feel sick.
- Pamper yourself! Take a rest or do something to take your attention off your sick feelings.
- Prevent dehydration by regular small drinks. Herbal teas or colas are generally well tolerated. You can get rid of the bubbles in fizzy drinks by stirring them with a spoon.
- Handle carefully any material covered with vomit (clothing, sheets, crockery etc.) for 72 hours after treatment. Vomit, like urine, may contain traces of the chemotherapy.
- Clean surfaces with your usual detergent, without bleach.
- Suggest that those around you wear rubber gloves when in contact with vomit.

N.B.

Ligue Suisse contre le cancer brochure, Difficultés alimentaires en cas de cancer [Food problems in cancer cases].
Chemotherapy and radiotherapy act on the cancerous tumour, but also on rapidly dividing cells like those of the mucous membrane in the mouth and digestive tract. Your gums, the inside of your cheeks, your palate, tongue and throat may become more fragile.

Inflammation of the mucous membrane in the mouth is known as mucositis. There are one or more symptoms – irritation, swelling, a burning sensation, mouth ulcers – and these are sometimes accompanied by difficulty chewing, swallowing or speaking.

To prevent these temporary but painful and distressing complications you are recommended to begin mouth washes from the first day of treatment and for at least a week. Mouth washes neutralize mouth acid and also get rid of any food debris left after brushing your teeth.

If necessary, the doctor will prescribe a pain-killer and appropriate treatment for the affected mucus to prevent possible risk of associated infection.

Some advice

- Brush your teeth gently, with a soft brush, at least after every meal.
- Choose a fluoride toothpaste.
- Follow up with a mouth wash. Roll the liquid around your mouth and then gargle for 1 minute.
- Use the bicarbonate solution proposed by your care team as a mouthwash or a mixture you can make up yourself: half to one teaspoonful of kitchen salt with half a teaspoonful of bicarbonate diluted in a litre of still water. Keep this mixture in the fridge and renew it every 24 hours.
- Repeat this treatment every time you eat or drink anything other than water, and whenever necessary for your comfort.
- Moisten your mouth as often as possible with regular mouthfuls of water or use a spray mist. Avoid using dental floss if it hurts or makes your gums bleed.
Some advice

- Ban all mouth care products on the market that contain alcohol.
- Brush your tongue, if it is furred, with a soft toothbrush. If a whitish deposit persists, tell your doctor. It could be a sign of infection.
- Make sure that your dentures are not injuring you and have them altered if needed. To eliminate the risk of infection, a visit to the dentist is recommended just before you begin your treatment.
- In case of injury, drink through a straw for greater comfort.

With complementary prescriptions for anaesthetics, anti-fungal medication, antiseptics etc., use exactly as prescribed by your doctor. Don’t hesitate to take the pain-killers you need.

Advice on what to eat

- Avoid tobacco and alcohol, which are highly irritating. If you smoke, a mouth wash after each cigarette may lessen the irritation.
- Give up food that is hard (bread crusts etc.), pungent (strong spices etc.), acid (tomatoes, lemon etc.) or sour (pickles etc.).
- Be careful with very sugary or salty foods as they are irritants.
- Choose semi-liquid foods or those containing juice (purees, meat with sauce, biscuits soaked in liquid) and calm irritation with ice cream, sherbet and other refreshing foods.

INFO

With a prescription from your doctor, your chemist can prepare a mouth wash identical to the HUG’s solution (which is reimbursed by the health insurance). The ingredients are as follows: 0.7 grs sodium bicarbonate, 0.45 grs sodium chlorate, 0.125 ml banana or strawberry flavouring, 100 ml distilled water.

N.B.

Ligue Suisse contre le cancer brochure, Difficultés alimentaires en cas de cancer [Food problems in cancer cases].

This card was translated by
DIGESTIVE TROUBLES

Important information for you

Your treatment may possibly upset your digestion, provoking diarrhea or constipation. Diarrhea is marked by liquid stools or more frequent bowel movements (two to four times as often as usual). It may give rise to problems of dehydration or local irritation and be accompanied by stomach cramps.

Constipation reduces the frequency of bowel movements and makes the stools so hard that it is difficult to expel them. It is often accentuated by medication for nausea or pain. The doctor can prescribe you a treatment to keep the bowels open even while you are taking medicine for pain or nausea. Reduced physical activity during your illness, as well as certain forms of chemotherapy, also tend to slow down your digestion.

Be quick to tell the doctor about:

- Diarrhea that lasts more than 48 hours
- Constipation continuing for more than three days
- Blood in your stool
- Stomach pains, bloating or abdominal cramps
- Fever
- Nausea or vomiting
- Loss of appetite

An additional way of dealing with the problem

Only psyllium (plant therapy) is proven to improve intestinal transit. It exists in the form of granules that can be added to yoghurt or fruit juice for example. Psyllium swells and increases the volume of the stools by absorbing water, so it is essential to drink plenty when regulating digestion with this type of plant.
**Some advice**

**If you have diarrhea**
- Drink at least 1.5 litres a day in small quantities, frequently and preferably at room temperature (water, herb teas). Do not take more than three caffeine- or theine-containing drinks per day.
- Clean your anus frequently to prevent local irritation. Take, for example, a tepid or cool shower and pat the skin dry. Consult your care team about using any protective creams.
- Choose a low-fat diet, favouring foods such as cooked carrots, potatoes, rice, pasta or bananas. They contain little fibre or fibre of the ‘soluble’ kind. Whole-wheat bread and other fibre-rich foods are not advised.
- Avoid also ‘light’ or ‘low-sugar’ products or those containing sweeteners (sorbitol).

**If you are constipated**
- Drink little and often.
- Increase your daily consumption of liquid by at least half a litre.
- Keep up regular stimulating physical exercise like walking.

**N. B.**
Ligue Suisse contre le cancer brochure, *Difficultés alimentaires en cas de cancer* [Food problems in cancer cases].
THE EFFECT OF CHEMOTHERAPY ON WHITE BLOOD CELLS

Important information for you

Blood is composed of several types of cell: red and white cells and platelets. Chemotherapy acts on all the body’s cells and prevents them from multiplying. Those that multiply very fast, like blood cells, are the most affected and their number decreases.

This decrease varies: it may be slight or very considerable, depending on the different combinations of chemicals administered. Your blood cell count is checked very regularly by means of a blood test known as a ‘complete blood count’ (CBC).

White blood cells

The different types of white blood cells protect your body from infection. When their number goes below a certain level (neutropenia), you risk catching infections more easily. Prudence is recommended in such a case.

If the number of white blood cells, particularly the neutrophils, goes too low (to less than 500 per cubic millimetre), this is known as agranulocytosis. The risk of infection is serious and protective measures have to be taken and respected. In some cases, particularly if you are running a fever, the medical team will decide to admit you to hospital. You will then stay from a few days to several weeks in a private room in order to reduce the risk of catching an infection while your immunity is very low.

In certain situations, the oncologist will decide to stimulate the growth of your white blood cells by means of injections.

Some advice when your white blood cell count is low

- Check your temperature when in doubt.
- Report any shivering or feverishness.
- Take a bottle of disinfectant for the hands with you and use it after every contact with objects in public places (lift buttons, handles on buses, WCs etc.).
- Avoid very busy places such as public transport, shops, restaurants etc., or wear a mask when you visit them.
Some advice

- Choose off-peak hours for your shopping.
- Avoid contact with sick people.
- Be careful around infants and schoolchildren, as they are often the source of colds, ear infections, coughs etc.
- Avoid handling pets’ litter.
- Choose cooked food, pasteurized cheese, fruit that has been washed and peeled and avoid unpackaged spices.
- Keep your food in a refrigerator and eat food cooked recently or kept chilled if it was not cooked that day.

In case of agranulocytosis in hospital

Protective measures are adopted

- Your temperature will be taken several times a day. Fever or shivering are the first warning signs of an infection.
- You can leave your room only exceptionally and must then wear a highly filtering mask. The windows must be kept closed.
- Although visits are recommended, they must be limited to two persons at a time.
- Staff and visitors wear masks and overalls and must systematically disinfect their hands.
- Anything entering your room must be decontaminated each day.
- Brush your teeth with a soft toothbrush to avoid harming your gums.
- Choose an electric razor and in general avoid any cuts.
- Plants and flowers are banned.

INFO

Magazines and books are permitted so long as they are new. Laptops will be disinfected daily (the hospital has internet connection). You can add a personal touch to your room with posters, personal photos etc.
THE EFFECT OF CHEMOTHERAPY ON RED BLOOD CELLS AND PLATELETS

Important information for you

Blood is composed of several types of cell: red and white cells and platelets. Chemotherapy acts on all the body’s cells and prevents them from multiplying. Those that multiply very fast, like blood cells, are the most affected and their number decreases.

This decrease varies: it may be slight or very considerable, depending on the different combinations of chemicals administered. Your blood cell count is checked very regularly by means of a blood test known as a ‘complete blood count’ (CBC).

Red blood cells (RBCs)

Red blood cells serve to transport oxygen in the blood. If their number is too low, this is called anaemia. It may cause fatigue and breathlessness when you make an effort. Your oncologist may decide to give you a blood transfusion to treat the anaemia.

Platelets

Platelets or thrombocytes are one of the elements that make your blood coagulate (or clot). If there are too few, we speak of thrombopenia. If this condition is too serious, your oncologist may prescribe transfusions of packed platelets to lessen the danger of bleeding.
Some advice

- Alert your doctor if you have any light bleeding: of the gums when brushing your teeth, blood in your stool or urine.
- Go straight to the emergency service if the bleeding is persistent or heavy and ask that your oncologist be informed.
- Note any bruises (haematoma) on your skin and point them out to your doctor.
- When your platelet count is low, avoid activities where you may get knocked or fall.
- Use cold or a light compress to stop bleeding while you wait for the doctor’s advice.
HAIR LOSS

Important information for you

Illness and the effects of certain treatments often make visible changes to one’s physique. Chemotherapy may cause you temporarily to lose your hair. Such side-effects can affect your morale and your well-being.

Hair care

- If you lose your hair during chemotherapy, it will grow again some weeks after the termination of treatment. Its colour and texture will not always be the same when it grows back.
- Hair loss is sometimes accompanied by tingling or itching. This stage is often experienced as a difficult one. The care team will support you and propose alternative head coverings. You can wear a scarf (preferably of natural fibre: cotton or silk), a beret, a hat or a wig.
- Your body hair may also change; however, the loss of eyebrows, underarm or pubic hair varies from one person to another.

INFO

During the summer a scarf is often easier to wear than a wig. The care team will gladly give you some good tips on different ways of knotting it.
Quality criteria for the choice and care of your wig

- Make an appointment with the wig-maker if possible before you lose your hair. If you have already lost it, take along a photo of yourself that you like.
- A medical wig is designed to be worn on a bald head. It should not have any thick seams or roughness on the inside because this may injure you.
- It should be finely woven and transparent so that one can see your head at the roots in the normal way.
- The wig must fit perfectly to allow you to move about without it slipping. After-sales service must include adjustments at no extra cost.
- The retailer, even if not a specialized wig-maker, must offer to trim and correct the model as best suits your appearance.
- High quality wig-makers and retailers offer to visit you in hospital at no additional cost.
- A wig can be washed with a normal soft shampoo, rinsed well and left to dry in the air. No specific care products are necessary.
- High heat can damage a wig. You are recommended not to expose yours to the steam when you open the oven, while you are cooking food, using a steam iron station, in the sauna etc.
- A disability insurance or AI (for those of working age) or AVS (for retirees) will reimburse the costs of a wig on the basis of a flat annual fee. Good wig-makers or retailers will take charge of the administrative paperwork for you.

N. B.

Ligue Suisse contre le cancer brochure, *Soigner son apparence durant et après la thérapie* [Taking care of your appearance during and after treatment].

This card was translated by [Translate Carte]
SKIN AND NAIL CARE

Important information for you

Illness and the effects of certain treatments often make visible changes to one’s physical appearance. Chemotherapy may make your skin and nails fragile. Such side-effects can affect your morale and your well-being.

Skin care

During the anti-cancer treatment your skin will become more fragile, drier and more sensitive to sunlight and to strong lighting.

- Protect your skin by applying a moisturizing cream each day. Your care team will advise you what product to choose.
- As far as possible avoid exposure to the sun. Use a sun cream with a high sun protection factor even if you stay in the shade. Apply it 30 minutes before going out.
- Before you apply a cream, get into the habit of testing it on a small area of your skin. Then wait 24 hours to assess any reactions.
- Modify your usual make-up, choosing warm tones. You will look better.

INFO

The sun’s rays include UVA and UVB. The figure appearing on the tube of cream – the SPF or sun protection factor – only indicates the protection provided against UVB. For total sun protection, choose a cream marked ‘broad spectrum’ or indicating UVA + UVB. Quality products at low prices do exist. An SPF of 30 stops 97% of the UVB rays; for total protection go for SPF 50. Choose a formula that suits you, as you are advised to re-apply it frequently.
Nail care

- In some cases your nails change their characteristics. They can become discoloured or brittle or split or break. Report any infection, mycosis or any little wounds especially around the nail.
- Use a nail polish remover without acetone.
- Moisturise the skin surrounding your nails daily.
- Nail hardening products should be applied with care, from the middle of the nail to the extremity, without covering the half-moon, particularly if your nails are splitting.

**Also Available**

Once a month at the HUG, make-up workshops for women are organized by the Foundation *Look Good Feel Better*. Information on www.lgfb.ch


**N.B.**

The Ligue Suisse contre le cancer brochure, *Soigner son apparence durant et après la thérapie* [Taking care of your appearance during and after therapy].
SKIN DAMAGE LINKED TO TREATMENT AGAINST EGFR

Important information for you

You are receiving a treatment targeted at the epidermal growth factor receptor (EGFR). This treatment has undesirable but temporary effects on the skin, making it fragile.

The changes to your skin usually take place in three stages. Your oncologist will offer you:
- Appropriate treatment
- Consultation with a dermatologist if need be.

Stage 1: Spots appear
Very frequently, acne-like spots erupt in the very first weeks of treatment, most often on the face or trunk, causing discomfort and itching.
Do not take any medication for acne; it will be useless, and may even be harmful.

Stage 2: The skin dries out
Your skin dries and may also peel and an eczema-like redness appears.

Stage 3: Body hair and eyelashes change. Your extremities are affected
Your eyelashes and body hair grow longer. Sometimes a soft down appears on your face. Your fingers and the soles of your feet become chapped and cracked. The skin surrounding your nails is red and painful.
These effects come later and are rarer. They disappear once the treatment is terminated.
This kind of treatment may also provoke hyperkeratosis, which is a thickening of the calluses on your feet. Consultation with a chiropodist can be arranged by your care team either before or during treatment.

ALSO AVAILABLE
Consultations concerning body image and make-up workshops can be arranged at the HUG.
Some advice

- Take care of your skin each day, lavishing moisturizers on it from the start of your treatment. Your care team will advise you how to choose the most suitable creams.
- Use PH-neutral soap and shower gel.
- Avoid all irritating products containing alcohol or perfumed cosmetics.
- Ask your care team for advice about masking facial spots with tinted creams.
- Clean your nails and the surrounding skin daily and apply a greasy ointment to the cuticles.
- Take regular care of your hands and feet: cut your nails, apply plenty of moisturizer, remove calluses.
- Wear loose-fitting clothes and shoes to prevent the skin being rubbed.
- Avoid direct exposure to the sun and protect yourself from the wind which can further dry your skin.
- Before going out in sunny weather or bright light, protect your skin with a high-SPF sun cream (at least 30). Low-cost high-quality products do exist in the supermarkets. Choose them according to what part you need to cover (face or body). Go for a formula you like, because you will have to re-apply it very often.
- If necessary, apply cold compresses during treatment to lessen the inflammation.

INFO

The sun’s rays include UVA and UVB. The figure appearing on the tube of cream – the SPF or sun protection factor – only indicates the protection provided against UVB. For total sun protection, choose a cream marked ‘broad spectrum’ or indicating UVA + UVB. Quality products at low prices do exist. An SPF of 30 stops 97% of the UVB rays; for total protection go for SPF 50.
HAND-FOOT SYNDROME

Important information for you

Certain anti-cancer medications tend to weaken the parts of your body that are most subject to wear and tear: the palms of your hands and the soles of your feet. The elbows, armpits and areas subject to pressure, for example under your belt or your bra straps may also be concerned. The symptoms are called the hand-foot (palmo-plantar) syndrome. They are sometimes exacerbated by heat, friction or pressure; they are, however, reversible once the treatment is over.

Signs to note

- Numbness in the extremities, pins and needles, tingling, burning, pain.
- Peeling or flaking skin, redness, swelling.
- Presence of blisters or ulcers, grazing or chapping.

If you notice anything unusual about your skin, point it out to your care team, as this syndrome can quickly become a handicap.

Some advice

- At the appearance of the first signs, bathe your hands or feet several times a day in cold water. You can add ice to the water.
- Apply moisturizer to your hands and feet twice a day.
- Apply antiseptic ointment to any wound or sore.
- Choose non-irritating toiletries without alcohol.
- Dry your skin by dabbing it rather than rubbing.
- Wear comfortable shoes. The heels shouldn’t be too high.
- Choose clothing of light airy materials, with fine seams so as to avoid friction that could irritate your skin.
- Avoid all contact with heat: hot water, hot surfaces underfoot, saunas etc.
- Protect your hands with suitable gloves when doing housework or odd jobs and remove them from time to time to prevent overheating or dampness.
Some advice

- Rest with your arms and legs raised.
- Use a cream containing 10-15% urea for serious calluses.
- Check the soles of your feet carefully, with a mirror if need be, so as to spot any injury you may not have felt.
- Do not use sticking plasters on the weakened parts.

INFO
If you have no open wounds on your feet, you can use a cream or ointment stick to prevent friction.

Also available
An appointment with a chiropodist at the HUG can provide a vast range of specialized care: from prevention by eliminating calluses to the treatment of more serious side effects.
DYSFUNCTION OF THE PERIPHERAL NERVES

Important information for you

Certain medications used in chemotherapy have a toxic effect on the nervous system. The peripheral nerves in your hands and feet are most sensitive to this toxicity. The signs may appear days or weeks after the beginning of your treatment. They usually diminish once the therapy is terminated, but sometimes persist for a long time and can even be irreversible. Recovery time from slight injuries is two to three months; more serious damage may take more than two years to heal.

Signs to note

- Pins and needles, numbness, tingling, a loss of strength.
- A loss of sensitivity or, to the contrary, exacerbated sensitivity.
- Difficulty performing complicated manoeuvres with the fingers: tying shoe laces, writing, buttoning a shirt etc.
- Changes in your hearing or abnormal noises (tinnitus).

**Let your care team know about these symptoms because they can quickly become a handicap.**

INFO

Diabetics or persons who are undernourished, have a kidney insufficiency or consume excessive amounts of alcohol are at greater risk of developing a dysfunction of the peripheral nerves.
**Some advice**

- Wear comfortable shoes and avoid high heels or stiff materials.
- Protect your hands with suitable gloves when doing housework or odd jobs.
- Check the soles of your feet carefully, with a mirror if need be, to detect any injury you may not have been aware of.
- Take the temperature of the bath with a thermometer if you cannot trust the sensitivity of your hands or feet.
- Walk carefully on sloping ground. Lessened sensitivity in your feet may cause you to lose your balance and fall.
- Don’t hesitate to ask for an appropriate pain medicine. Neurological pain doesn’t always respond to standard painkillers.
PRECAUTIONS TO BE TAKEN WITH URINE

Important information for you

Your body evacuates the chemicals from chemotherapy mainly through your urine. Active residue from the medication stays in the body for 72 hours after administration, hence the need to observe certain precautions.

Additionally, your ankles or fingers may swell because you are retaining water and salt. This is known as oedema. The cortisone treatment preceding chemotherapy or associated with anti-hormone therapy is the most frequent cause of this phenomenon, though some kinds of chemotherapy are themselves directly responsible for water/salt retention.

Your weight is checked regularly to assess whether you are eliminating enough water. Your urine is also sometimes measured to see that sufficient amounts are being produced.

Certain forms of chemotherapy colour your urine red, blue, green or bright yellow. The team will warn you about this effect which is of no importance for your health.

Signs to note

- The presence of blood in your urine.
- A burning sensation when urinating.
- A frequent or urgent need to urinate.
- An inability to urinate.

If you notice one of these signs, tell your doctor or care team straightaway.

INFO

Chemicals from chemotherapy stay in the blood for from a few hours to several days. Active residues are present in your urine, but also in your stools and all body fluids (vomit, saliva, genital secretions, sweat etc.). Those around you are advised to wash their hands or, even better, to wear gloves in case of possible contact with a body fluid. The treatment is beneficial for you, but those around you need to be protected from it, especially young children and pregnant women.
**Some advice**

*During your treatment and the three following days*

- Drink more the day before and during the days of treatment so as to urinate more often. That way your urine is more diluted and the active residue from the medication stays less time in contact with your bladder.
- Empty your bladder regularly as soon as you feel the need. Don’t hold it back.
- Wash your hands and ask those around you to do likewise or advise them to wear gloves in case of direct contact with your urine.
- Each time you urinate, empty and rinse the chamber pot or urinal (if you use one).
- Avoid any splashing on the edge of the toilet bowl. Men are advised to sit to urinate, both in hospital and at home.
- Clean the toilet seat with your usual household cleaner (in hospital with the spray provided).
- Do not use bleach. It has a toxic reaction with the chemotherapy residue.
Sexuality

Cancer can have an impact on your sexuality and may alter your priorities. Surgery, pain or the unwanted effects of the medication are all physical factors that may upset your intimate relations. In the same way, anxiety, certain treatments or changes to your body image may reduce your libido. The chemotherapy does not in itself reduce your sexual capacity or desire.

During chemotherapy the residue of the medicine is to be found in minute quantities in sperm or vaginal secretions up to 72 hours after administration, so it is important to use a condom during that time to protect your partner from direct contact with those substances.

Some advice

- Tell your doctor about any unusual symptoms in the genital area: discharge, irritation, pain etc.
- Talk with your partner so that he/she understands your difficulties.
- Use a water- or silicone-based lubricating gel without hormones to facilitate sexual relations in case of dryness or irritation.
- Explore alternative ways of experiencing sex and intimacy if penetration is difficult or impossible.
- Take care while having sex. At a time when your immune defences are low there is a greater risk of infection.

Important information for you

Specialists in sexual health and cancer are available at the HUG and the cancer care teams are aware of the subject.

The association Prosca offers support for men with prostate cancer.
Fertility

Once an anti-cancer treatment has been decided on for the man or the woman, it is inadvisable for the couple to plan a pregnancy. Treatment can have side effects on the foetus.

For men
Certain forms of chemotherapy or radiotherapy reduce the number of spermatozoa and bring about a temporary decline in fertility or even male sterility. Your doctor will inform you of the possibilities of freezing a sperm sample before your treatment begins.

For women
Some chemotherapy or radiotherapy can temporarily or permanently reduce ovarian function. If you want to have a child or think you may want to later, it is important to discuss with your doctor the probable effects of your cancer and of its treatment on your fertility.

In some cases taking measures to preserve fertility (freezing the ova, in-vitro fertilization) can be envisaged before treatment is begun with a view to a subsequent pregnancy.

Chemotherapy can trigger early menopause with the appearance of the following customary symptoms: hot flashes, an irregular or non-existent menstrual cycle, dryness and changes to the vagina.

Do not hesitate to speak to your doctor about the choice of an appropriate treatment.

INFO

During treatment you are recommended to use appropriate contraception as prescribed by your doctor. Even if the menstrual cycle is interrupted or the production of sperm diminished, there is still a risk of a child being conceived.

SAVOIR

Ligue Suisse contre le cancer brochures Cancer et sexualité au féminin [Cancer and female sexuality] and Cancer et sexualité au masculin [Cancer and male sexuality].
The news of a cancer diagnosis is always shattering. Whether it is you yourself, those near to you or your wider circle, everyone needs to find their bearings to be able to move ahead despite the disease. It is natural to go through all kinds of strong emotions like sadness, anger or anxiety, but also hope and defiance. This emotional roller coaster with its highs and lows is exhausting. At the same time fresh doubts will often present themselves about your priorities in life. Throughout your medical treatment your care team will be ready to listen to you and to share your difficulties. They will also try to support those around you and inform them of the resources available in the support network. A psycho-oncologist or a Psychiatrist can help you to face the situation. Don’t hesitate to call on them.

Facing up to it
Our capacity to face up to things can be reinforced by morale-boosting activities; but also by an understanding of the treatment, its aims, what it entails and the nature of the different stages. Don’t hesitate to ask questions about what worries you, so as to have all the relevant information to take the decisions that concern you.

Cultural differences
Cultural differences may create difficulties where your values or care priorities are concerned. You can ask for a transcultural consultation where someone of your culture is included, so as to give you support and to help your care team to understand you better.

Telling children
Children are alert to changes of mood in those around them. If they receive no explanation, they may interpret such changes in a negative way and may feel guilty of having done or thought something bad. Confronted with something unspoken, they are likely to lose their trust in adults. Expert child psychiatrists recommend that children be told the truth in simple terms and using non-scary examples. If you are afraid to tell your child about your illness or don’t know how to go about it, a professional can guide and prepare you.

Also available
A programme to educate and support patients living with cancer is run several times a year. For information: www.avac.ch
**Also available**

The Ligue genevoise contre le cancer and other associations offer books, special activities and support for children whose parents are sick.

The chaplaincy of the HUG comprises representatives of all religious denominations, who are available for patients and their families and friends. Don’t hesitate to call on them if this spiritual resource might be of help to you.

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**Some advice**

- Organize your time and save your energy for moments of refreshment.
- Bear in mind that everyone reacts differently to uncertainty and to times of stress.
- Keep on talking with those near to you; tell them your views and listen to theirs.
- Watch out for ‘black moods’, difficulty sleeping or undue stress and talk about your concerns with your care team.
- If you feel overwhelmed by negative thoughts and have no pleasure in life, ask for an appointment with a psychologist or psychiatrist.

**Other ways of dealing with the problem**

Relaxation can help you to put up with the unpleasant effects of treatment. Getting involved in artistic activities (music, poetry, drawing or writing) or just communing with nature can enable you to rediscover your inner strength.

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**N.B.**

Ligue Suisse contre le cancer brochures, *Quand le cancer touche les parents* [When parents are affected by cancer], *Accompagner un proche atteint de cancer* [Being there for someone with cancer], *Cancer, quand l’espoir de guérir s’amenuise* [Cancer, as the hope of a cure fades] and the rehabilitation courses (1 x/year).
EATING

Maintaining good nutritional health improves your tolerance of cancer treatments as well as your quality of life. Taking charge of your nutrition is part and parcel of your cancer care.

While chemotherapy may alter your sense of taste and lessen your enjoyment of your food, it is at this time that your body has a particular need of energy and of protein to keep your weight steady, preserve your muscles and fight infection. So indulge your fancies and eat what you like.

**However, you should keep to the most varied diet you can, to provide you with**

- **Protein:** meat, fish, eggs, milk products, tofu, pulses
- **Energy:**
  - Starchy or floury foods: pasta, rice, potatoes, polenta, semolina, quinoa, cereal, bread etc.
  - Sugary foods: fruit, sweets, sodas etc.
  - Fatty foods: oil, butter, cream
  - Energy-rich foods: delicatessen meats, cheese, chocolate, dried fruits and nuts, cakes, biscuits, crisps etc.
- **Vitamins, minerals and fibre from fruit and vegetables**
- **Sufficient hydration from water, herb teas, fruit juices (at least a litre a day is recommended).**

The side effects of the different treatments (nausea, vomiting, diarrhea, difficulty swallowing, mucositis, altered sense of taste, fatigue, pain etc.) can wreak havoc with your food intake and lead to a decline in your nutritional health.

**When your immune defences are seriously weakened over a long period, you need to follow a strict, carefully supervised regime so that your diet is not a source of infection. If this is your case, your care team will tell you so and will advise and help you to follow instructions about eating.**

**INFO**

Oral food supplements prescribed by your doctor are reimbursed in certain cases by the health insurance. We will help you with the insurance formalities.
Three possible strategies

1. You can enrich your meals by adding soups, floury foods, ham, cheese, eggs, cream, butter, oil etc.

2. If need be, oral food supplements, rich in protein and in energy can be introduced in the course of the day in the form of drinks, creams, soups etc.

3. If it becomes impossible to eat enough, artificial nutrition support can be provided: enteral feeding by naso-gastric tube (a tube that goes directly to your stomach) or parenteral feeding through a vein (also possible at home).

Some advice

- Drink preferably between meals.
- Try out new dishes. Your sense of taste and smell may change during treatment.
- Drink the food supplements between meals or at bedtime. They are sometimes nicer taken chilled or drunk through a straw.
- Keep up your outdoor exercise as that will stimulate your appetite.
- Break down your meals into smaller more frequent snacks, between-meal nibbles and treats: biscuits, yoghurt, dessert, ice cream, bread and cheese etc.

N.B.

Ligue Suisse contre le cancer brochure, Difficultés alimentaires en cas de cancer [Eating difficulties in cases of cancer]. HUG brochure, Alimentation et cancer [Eating and cancer].
You are recommended to stay physically active during your cancer treatment. You need, however, to moderate your effort and rest whenever movement triggers pain or difficulty breathing.

Keeping up regular physical exercise during your illness allows you to retain to the maximum your physical capacity, muscle mass and, above all, your day-to-day independence. Exercise has a positive effect on your quality of life, making you feel less tired, improving your appetite, keeping your weight steady, reducing the side effects of the treatment or allowing you to sleep better.

During your illness, regular moderate exercise is advisable. It can be stepped up during rehabilitation once your treatment is over. Check with your doctor about any possible activities that are not recommended.

**Some advice**

**For ‘couch potatoes’**

- Choose or continue activities you enjoy and adjust them to how you feel at a given moment.
- Limit yourself to a reasonable level of effort: you should have enough breath to talk normally while exercising. If you can’t, the exercise is too difficult. You should stop and resume it less intensively.
- Begin any effort with a two- or three-minute warm-up.
- Start gently with 10-minute exercise periods. Increase the frequency and then the length of your exercises if you feel well the day after.
- Choose walking, electric biking or gentle gymnastics, which can all be easily adapted.
- Practise stretching after an effort and take a brief rest.
- The secret of staying in form is the regularity with which you do these things.

**For sportsmen**

- If you are already used to exercising, keep up whatever activity suits your abilities and your present situation. Pay attention to the signs described above.
An exercise programme

Recommended minimum physical activity is 10-minutes endurance* test each day and twice 10 minutes of strengthening* each week, or a total of 90 minutes per week.

To start on a programme of regular physical exercise and to encourage you to persevere, write your goals for the week in the form of a table:

<table>
<thead>
<tr>
<th>Day</th>
<th>Endurance*</th>
<th>Strengthening*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
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<tr>
<td>Tuesday</td>
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<tr>
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<tr>
<td>Week</td>
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</tbody>
</table>

You will be able to see progress in the first weeks if you exercise regularly.

*Endurance: any activity that doesn’t raise your pulse above 100 per minute. You should be able to talk while exercising.

Gentle sport: walking, yoga, pilates, e-biking. Medium sport: swimming, rapid walking, hiking, cycling.

*Strengthening: strength exercises with weights or elastics or simply using the weight of your body: climbing stairs, squatting, bending.

These exercises are performed in series of five (to begin with). Take a break of at least a minute between series.

N.B.

Ligue Suisse contre le cancer brochure, Activité physique et cancer [Physical activity and cancer].
Do you feel you are forgetting everything? That you can’t remember where your keys are? Relax, it’s normal. Problems of memory and concentration are frequent during cancer.

Fatigue is the main cause of this state of affairs. It affects both body and mind, revealing itself in memory lapses and difficulty paying attention or thinking. For example, it can be an effort to read a newspaper or recall the several things you have to do. Patients often describe it as a ‘mental fog’.

The second cause of this state is the effect of the anti-cancer treatment on the brain. It has been demonstrated that during chemotherapy the brain has to mobilize more energy and use more resources than usual. You will recover your faculties to the full in the months following the end of therapy.

It is important to note that these side effects may prevent you from pursuing your professional activities and require you to postpone resuming work for some weeks or months.

Learning to manage the symptoms
Your difficulty in concentrating may contribute to an emotional exhaustion. Recognising the problem is the first step to tackling it and working out appropriate strategies.

INFO
Medical imaging has shown that the brain of a patient undergoing chemotherapy has to activate more grey cells to do a simple calculation.
Some advice
- Make a list of what you have to remember: shopping, phone calls, medical appointments etc.
- Plan your tasks for the next day.
- Alternate periods of activity and rest.
- Save your concentration for things of importance.
- Avoid multi-tasking. Concentrate on one activity at a time.
- Share your concerns with those around you. Their help in some of your tasks will save your energy.
- Keep some amusements and distractions in hand to refresh you.
- Ask to talk with a psychologist or a psychiatrist if you feel you can’t cope with daily life.

INFO
Regular physical activity is the only proven effective means of lessening the sense of fatigue.

INFO
The documents you have to hand – Mieux vivre les traitements contre le cancer – informations et conseils pratiques [Practical information and advice for a better experience of cancer treatment] – are presented in a short form with essential pointers to assist you when you are tired and have difficulty concentrating.
The University Hospitals of Geneva offer scientifically proven treatments that are effective against cancer. Other approaches, known as alternative or complementary medicine, exist and are often sought out by patients. Their effectiveness in treating cancer has not been proven, but they do contribute to alleviating certain symptoms and improving the quality of life.

What is known as ‘integrative’ or holistic cancer treatment takes account of the benefits that may be obtained from complementary approaches. However, some caution is to be recommended. Interactions may lessen or, to the contrary, increase the effect of your chemotherapy, putting your health at risk. For example, plant-based remedies or those containing essential oils are not harmless: they have powerful effects on your metabolism. And other products may affect how you absorb the medication into your blood.

Tell your doctor about any complements you use. Whether they are pills, drops or preparations applied to the body, he will check whether they are compatible with your state of health and will not trigger interactions with the chemotherapy or radiotherapy.

INFO

Complementary therapies

St John’s wort and grapefruit trigger severe interactions with medication. Liquorice has a considerable hypertensive effect (it raises your blood pressure). Plants like soya have similar effects on your hormones and should be avoided if your cancer is hormone-dependent, that is, if its evolution is influenced by hormones.
Some advice

- Buy your complementary therapies at the pharmacy or drugstore. If you buy online the composition of the medicines is not guaranteed.
- Keep the information that comes with the packaging and show it to your doctor.
- Beware of people who offer you miracle cures. They are not always impartial and you are more vulnerable when you are living through a difficult time.
- By way of examples, here are some recognized complementary techniques:
  - Acupuncture
  - Sophrology
  - Relaxation
  - Hypnosis
  - Chinese medicine
  - Phytotherapy
  - Homeopathy
  - Aromatherapy
  - Musicotherapy
  - Tai Chi.

INFO

The leaflets entitled Mieux vivre les traitements contre le cancer: informations et conseils pratiques [Practical information and advice for a better experience of cancer treatment] will inform you of those complementary approaches whose benefits have been scientifically proven to date.

N.B.

Ligue Suisse contre le cancer brochure, Parallèles? Complémentaires? [Parallel or complementary?]