



Canadian
Cancer
Society

Soci t 
canadienne
du cancer

Melanoma

Understanding your diagnosis



1 888 939-3333 | cancer.ca

Melanoma

Understanding your diagnosis

When you first hear that you have cancer, you may feel alone and afraid. You may be overwhelmed by the large amount of information you have to take in and the decisions you need to make.

“ *All I could hear was ‘cancer.’ I heard my doctor say something like, ‘We’re going to try and get the surgery done as soon as possible.’ I didn’t hear one word after that.* ”

The introductory information in this brochure can help you and your family take the first steps in learning about melanoma. A better understanding may give you a sense of control and help you work with your healthcare team to choose the best care for you.

For more information

The information in this brochure provides an introduction to melanoma. More in-depth information is available on cancer.ca. You can also call our Cancer Information Service at 1-888-939-3333 to learn more about cancer, diagnosis, treatment, support and the services we offer.

What is cancer?

Cancer is a disease that starts in our cells. Our bodies are made up of millions of cells, grouped together to form tissues and organs such as muscles and bones, the lungs and the liver. Genes inside each cell order it to grow, work, reproduce and die. Normally, our cells obey these orders and we remain healthy.

But sometimes the instructions in some cells get mixed up, causing them to behave abnormally. These cells grow and divide uncontrollably. After a while, groups of abnormal cells form lumps, or tumours.

Tumours can be either benign (non-cancerous) or malignant (cancerous). Benign tumour cells stay in one place in the body and are not usually life-threatening. Malignant tumour cells are able to invade nearby tissues and spread to other parts of the body. It’s important to find and treat malignant tumours as early as possible. In most cases, finding cancer early increases the chances of successful treatment.

Cancer cells that spread to other parts of the body are called metastases. The first sign that a malignant tumour has spread (metastasized) is often swelling of nearby lymph nodes, but cancer can spread to almost any part of the body.

Cancers are named after the part of the body where they start. For example, melanoma that starts in the skin but spreads to the liver is called melanoma with liver metastases.

What is melanoma?

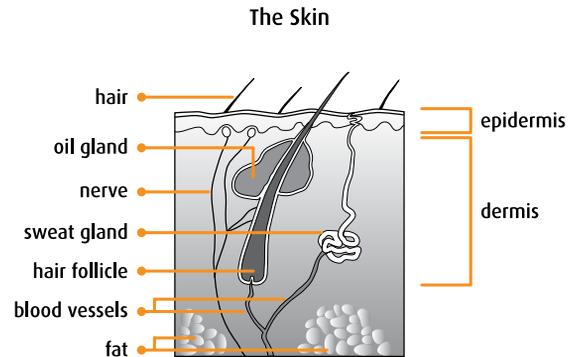
Melanoma is a cancer that usually starts in the skin. The skin is the body's largest organ. It protects the organs inside your body from injury, infection, heat and ultraviolet light from the sun. The skin helps control your body temperature and gets rid of waste materials through the sweat glands. It also makes vitamin D and stores water and fat.

The skin has 2 main layers - the epidermis and the dermis. The epidermis is the layer at the surface.

The epidermis is made up of 3 main types of cells:

- Basal cells are continually being made deep in the epidermis. Newly made round basal cells push the older cells toward the surface of the skin to become squamous cells.
- Squamous cells are old cells. As they move toward the skin's surface, they become thin and flat.
- Melanocytes are found in between the basal cells. Melanocytes are cells that make melanin, which gives colour to your skin. When skin is exposed to the sun, it gets darker, or tans, because the sun causes the melanocytes to make more melanin. Sometimes melanocytes group together and form moles (called nevi). Moles are common and are usually not cancerous. Melanoma starts in the melanocytes.

The dermis is the inner layer, below the epidermis. It contains nerves, blood vessels, sweat glands, oil glands and hair follicles.



Melanoma is less common than squamous cell and basal cell skin cancers (sometimes called non-melanoma skin cancers).^{*} Melanoma usually starts in the skin, but in rare cases it can start in other places in the body where melanocytes are found, such as the eyes, mouth or vagina or under the fingernails.

^{*} The information in this brochure is about melanoma. Non-melanoma skin cancers are less serious and are treated differently. For information about non-melanoma skin cancers, see our brochure on non-melanoma skin cancer or contact our Cancer Information Service at 1-888-939-3333.

Diagnosing melanoma

Your doctor may suspect you have melanoma after taking your medical history and doing a physical examination. To confirm the diagnosis, you will have a biopsy. The biopsy results may also be used to “stage” the cancer and help plan treatment.

Signs of melanoma: Most often the first sign of melanoma is a new, unusual-looking growth on the skin. Or you may notice a change in a mole that you’ve had for a long time. Melanoma can start anywhere on your body, but it usually starts in areas that are exposed most often to the sun – the head, face, neck, hands, arms and legs.

All melanomas look different. Signs of a melanoma include:

- a new mark or spot on the skin
- a mole or spot that:
 - > has changed in size, shape, colour or height (how much it is raised above the skin)
 - > looks different from all the other spots on your skin
 - > is asymmetric (one side of the spot does not match the other)
 - > has an irregular border or jagged edges
 - > is not the same colour all over or has changed colour (shades of brown, black, pink, red, white or blue)
 - > is crusted or bleeding
 - > has redness or a new swelling beyond its border

- > is more than 6 mm across (about the size of a pencil eraser)
- > itches, tingles or hurts
- a sore that doesn’t heal
- the spread of pigment from the border of a spot to surrounding skin
- new moles that grow around an existing mole
- a growth under a fingernail or toenail or a new pigment in a nail

Other health problems can cause some of the same signs. The process of diagnosis may seem long and frustrating, but it’s important for the doctor to rule out other possible reasons for a health problem.

Biopsy: A biopsy is necessary to make a definite diagnosis of melanoma. The doctor tries to remove all of the growth or mole. This type of biopsy is called an excisional biopsy. If the doctor cannot remove all of it, then a sample of the tissue is removed. This is called an incisional biopsy. The biopsy can be done in the doctor’s office, or you may go to the hospital as an outpatient (you do not stay overnight). A local anesthetic (freezing) is used to numb the area. Stitches may be needed to close the cut.

The tissue sample is checked under a microscope. If the cells are cancerous, they may be studied further to see how fast they are growing.

Further testing: If the biopsy shows that the melanoma may have spread deeper into the skin, your doctor may order other tests such as a biopsy of nearby lymph nodes, imaging studies or blood tests.

Will I be okay?

Most people with cancer want to know what to expect. Can they be cured?

A prognosis is your doctor's best estimate of how cancer will affect you and how it will respond to treatment. A prognosis looks at many factors, including:

- the type, stage and grade of cancer
- the location of the tumour and whether it has spread
- your age, sex and overall health

Even with all this information, it can still be very hard for your doctor to say exactly what will happen. Each person's situation is different.

Your doctor is the only person who can give a prognosis. Ask your doctor about the factors that affect your prognosis and what they mean for you.

Staging

Once a definite diagnosis of cancer has been made, the cancer is given a stage. This information helps you and your healthcare team choose the best treatment for you.

The cancer stage describes the tumour size and tells whether it has spread.

For melanoma, there are 5 stages.*

Stage	Description
0	The melanoma has not spread below the surface of the skin. Stage 0 is sometimes called in situ.
1	The melanoma has grown deeper into the skin and is less than 1 mm thick. It has not spread to lymph nodes or to other parts of the body.
2	The melanoma is larger than 1 mm thick. It has not spread to lymph nodes or to other parts of the body.
3	The melanoma cells have spread to one or more nearby lymph nodes.
4	The melanoma cells have spread to other skin areas, to distant lymph nodes or to other parts of the body.

* This table summarizes the stages of melanoma according to the Union for International Cancer Control (UICC) and the American Joint Committee on Cancer (AJCC). For more in-depth information, visit cancer.ca.

Treatments for melanoma

Your healthcare team considers your general health and the type, stage and grade of the cancer to recommend the best treatments for you. You'll work together with your healthcare team to make the final treatment choices. Talk to them if you have questions or concerns.

For melanoma, you might receive one or more of the following treatments.

Surgery: A decision to have surgery depends on the size and thickness of the melanoma and where it is. Most tumours can be removed using a local anesthetic (freezing) to numb the area. If the tumour is large, a skin graft may be needed. The doctor takes a piece of skin from another part of your body (such as the thigh or behind the ear) to replace the skin that was removed. This may be done under a local anesthetic or under a general anesthetic (you will be unconscious). You may stay in the hospital for several days after the surgery.

The doctor may be able to completely remove a very thin melanoma during the biopsy, and you may not need any more surgery. If the melanoma was not completely removed during the biopsy, the doctor then removes the rest of the melanoma as well as some healthy tissue (called a margin) around the tumour.

During surgery, the doctor may also remove some nearby lymph nodes to see if the cancer has spread. This is called a lymph

node dissection. You may be offered a newer procedure called sentinel lymph node biopsy, which may mean fewer lymph nodes are removed.

After surgery, you may have some side effects. If lymph nodes are removed, lymph fluid may build up and cause swelling. This is called lymphedema. Lymphedema can happen soon after surgery, or months or even years later.

Biological therapy: Biological therapy (sometimes called immunotherapy) uses your immune system to fight cancer or to help control side effects of cancer treatments. Natural body substances or drugs made from natural body substances are used to boost the body's own defences against illness. Side effects can include flu-like symptoms and a rash, but these are usually temporary.

Radiation therapy: In external beam radiation therapy, a large machine is used to carefully aim a beam of radiation at the tumour. The radiation damages the cells in the path of the beam - normal cells as well as cancer cells. Radiation side effects depend on what part of the body receives the radiation. You may feel more tired than usual or notice changes to the skin (it may be red or tender) where the treatment was given.

Radiation therapy may be used to help control melanoma that has spread to other parts of the body. It can also help relieve pain or other symptoms.

Chemotherapy: Chemotherapy uses drugs to treat cancer. Chemotherapy drugs may be given as pills or by injection. They interfere with the ability of cancer cells to grow and spread, but they also damage healthy cells. Although healthy cells can recover over time, you may experience side effects from your treatment including nausea, vomiting, diarrhea, loss of appetite, fatigue, hair loss and an increased risk of infection.

Chemotherapy is not used very often to treat melanoma. For melanoma on a leg or arm, chemotherapy drugs may be put directly into the bloodstream of that limb. This is called isolated limb perfusion. Isolated limb perfusion may not be available in all cancer centres.

For more information on treatment, you may want to read our booklets *Chemotherapy and Other Drug Therapies* and *Radiation Therapy*.

Clinical treatment trials: Clinical treatment trials investigate new approaches to treating cancer. They provide information about the safety and effectiveness of new drugs, types of treatment or new combinations of existing treatments. Clinical treatment trials are closely monitored to make sure that they are safe for the participants. Ask your doctor if any clinical trials are available as a suitable treatment option for you. You may benefit and so may future cancer patients.

Our booklet *Clinical Trials* has more information, including how to find a clinical trial.

Complementary therapies: Complementary therapies – for example, massage therapy or acupuncture – are used *together with* conventional cancer treatments, often to help ease tension and stress as well as other side effects of treatment. They don't treat the cancer itself. More research is needed to understand if these therapies are effective and how they work.

Alternative therapies are used *instead of* conventional treatments. Alternative therapies haven't been tested enough for safety or effectiveness. Using alternative treatments alone for cancer may have serious health effects.

If you're thinking about using a complementary or alternative therapy, find out as much as you can about the therapy and talk to your healthcare team. It's possible that the therapy might interfere with test results or other treatments.

Our booklet *Complementary Therapies* has more information.

Side effects of treatment: Some cancer treatments cause side effects, such as fatigue, hair loss or nausea. Because treatments affect everyone differently, it's hard to predict which side effects – if any – you may have.

Side effects can often be well managed and even prevented. If you're worried about side effects, tell your healthcare team about your concerns and ask questions. They can tell you which side effects you should report right away and which ones can wait until your next appointment.

Some side effects of treatment for melanoma can be long lasting, such as lymphedema. Lymphedema is swelling in the arm, leg or other part of the body caused by a buildup of lymph fluid. This may happen if lymph nodes have been removed by surgery. It's hard to predict if you'll get lymphedema. The risk is higher if you've had many lymph nodes removed.

Lymphedema sometimes goes away quickly, but it can also last for a long time. Often lymphedema causes only mild symptoms that can be controlled very well. Be sure to call your doctor if you notice any swelling, redness or signs of infection in the area close to where lymph nodes were removed.

If you notice any side effects or symptoms that you didn't expect, talk to a member of your healthcare team as soon as possible. They can help you get the care and information you need.

After treatment

Follow-up care helps you and your healthcare team monitor your progress and your recovery from treatment. At first, your follow-up care may be managed by one of the specialists from your healthcare team. Later on, it may be managed by your family doctor.

The schedule of follow-up visits is different for each person. You might see your doctor more often in the first year after treatment and less often after that. After treatment has

ended, you should report new symptoms and symptoms that don't go away to your doctor without waiting for your next scheduled appointment.

People who've had melanoma have a higher chance of developing a new melanoma in the same area or on another part of the body. Learn how to examine your skin, know what to look for and do it regularly. Report any skin changes, lumps, swelling or other signs to your doctor right away.

The end of cancer treatment may bring mixed emotions. You may be glad the treatments are over and look forward to returning to your normal activities. But you might feel anxious as well. If you are worried about your treatment ending, talk to your healthcare team. They are there to help you through this transition period.

Self-image and sexuality: It's natural to be concerned about the effects of melanoma and its treatment on your self-image. You may be worried about how your body looks and possible scarring after treatment, about having sex with a partner or that you may be rejected. It may help to talk about these feelings with someone you trust. Your doctor can also refer you to specialists and counsellors who can help you with the emotional side effects of melanoma treatment.

Our booklet *Sexuality and Cancer* has more detailed information.

Living with cancer

Our booklet *Living with Cancer* has more detailed information and resources.

Many sources of help are available for people with cancer and their caregivers.

Your healthcare team: If you need practical help or emotional support, members of your healthcare team may be able to suggest services in your community or refer you to cancer centre staff or mental health professionals.

Family and friends: People closest to you can be very supportive. Accept offers of help. When someone says, “Let me know how I can help,” tell them what they can do. Maybe they can run errands, cook a meal or give you a ride to your doctor’s office.

People who’ve had similar experiences: Talking with and learning from others who’ve had similar experiences can be helpful. Consider visiting a support group or talking with a cancer survivor in person, over the telephone or online. Try more than one option to see which one works best for you.

Yourself: Coping well with cancer doesn’t mean that you have to be happy or cheerful all the time. But it can mean looking after yourself by finding relaxing, enjoyable activities that refresh you mentally, spiritually or physically. Take some time to find coping strategies to help you through this experience. You may also want to talk to a counsellor for more help.

Connecting with someone who’s had a similar cancer experience

Let us connect you with a volunteer who can listen, provide hope, offer encouragement and share ideas for coping – all from the unique perspective of someone who’s “been there.”

To find out more about what’s available in your area, you can:

- Call our toll-free Cancer Information Service at 1-888-939-3333 (TTY 1-866-786-3934) Monday to Friday, 9 a.m. to 6 p.m.
- Email us at info@cis.cancer.ca.
- Visit our website at cancer.ca.

Want to connect with someone online?

If you’d like to connect with someone online, join our online community, CancerConnection.ca. There are discussions, blogs and groups that may interest you, and you’ll find caring, supportive people there.

What causes melanoma?

There is no single cause of melanoma, but some factors increase the risk of developing it. Some people can develop melanoma without any known risk factors, while others who have these factors do not get it.

Risk factors for melanoma include:

- exposure to ultraviolet radiation from the sun or from artificial UV light (such as tanning beds and sun lamps)
- lots of moles
- unusual moles (called dysplastic nevi) – they may be irregular in shape or larger or darker than normal moles
- light skin, eyes or hair
- skin that burns or freckles easily

- having had melanoma before
- family history of melanoma in one or more relatives
- weakened immune system
- severe sunburn during childhood

The Canadian Cancer Society *Helping you understand cancer*

Now that you know the basics of melanoma, you may want to learn more. Please contact us for more in-depth information and support. Our services are free and confidential.

To contact the Canadian Cancer Society:

- Call an information specialist toll-free at 1-888-939-3333 (TTY 1-866-786-3934) Monday to Friday, 9 a.m. to 6 p.m.
- Email us at info@cis.cancer.ca.
- Visit our website at cancer.ca.
- Contact your local Canadian Cancer Society office.



We'd like to hear from you

Email us at publicationsfeedback@cancer.ca if you have comments or suggestions to help us make this brochure more useful for you and other readers.

What we do

The Canadian Cancer Society fights cancer by:

- doing everything we can to prevent cancer
- funding research to outsmart cancer
- empowering, informing and supporting Canadians living with cancer
- advocating for public policies to improve the health of Canadians
- rallying Canadians to get involved in the fight against cancer

Contact us for up-to-date information about cancer and our services or to make a donation.



Canadian Cancer Society Société canadienne du cancer

1 888 939-3333 | cancer.ca
TTY 1 866 786-3934

This is general information developed by the Canadian Cancer Society. It is not intended to replace the advice of a qualified healthcare provider.

The material in this publication may be copied or reproduced without permission; however, the following citation must be used: *Melanoma: Understanding your diagnosis*. Canadian Cancer Society 2013.