Advanced and Metastatic Cancer

Advanced cancers are not usually curable, but can be treatable. Symptom management is also an important part of treatment for advanced cancer.

What Are Advanced and Metastatic Cancers?

If you or a loved one is told that you have advanced cancer, it's very important to find out exactly what the doctor means. Some may use the term to describe metastatic cancer, while others might use it in other situations. Be sure you understand what the doctor is talking about and what it means for you.

What is advanced cancer?

Advanced cancer is most often used to describe cancers that cannot be cured. This means cancers that won't totally go away and stay away completely with treatment. However, some types of advanced cancer can be controlled over a long period of time and are thought of as an ongoing (or chronic) illness[1].

Even if advanced cancer can't be cured, treatment can sometimes:

- Shrink the cancer
- Slow its growth
- Help relieve symptoms
- Help you live longer

For some people, the cancer may already be advanced when they first learn they have the disease. For others, the cancer may not become advanced until years after it was first diagnosed.

Advanced cancers can be locally advanced or metastatic.

Locally advanced means that cancer has grown outside the body part it started in but has not yet spread to other parts of the body. For example, some cancers that start in the brain may be considered advanced because of their large size or closeness to important organs or blood vessels. This can make them life-threatening even though they haven't spread to other parts of the body. But other locally advanced cancers, such as some prostate cancers, may be cured.

Metastatic cancers have spread from where they started to other parts of the body. Cancers that have spread are often thought of as advanced when they can't be cured or controlled with treatment. Not all metastatic cancers are advanced cancers. Some cancers, such as testicular cancer, can spread to other parts of the body and still be very curable.

As advanced cancer grows, it can cause symptoms. These symptoms can almost always be managed with treatment, even when the cancer itself no longer responds to treatment.

What is metastatic cancer?

Metastatic cancer is a cancer that has spread from the part of the body where it started (the primary site) to other parts of the body. Metastasis might be described based on how far from the primary site it has spread:

- **Local metastasis** means cancer cells have spread to nearby tissues or lymph nodes. This is an early stage of metastasis.
- **Regional metastasis** means the cancer has spread farther, but still in the same region of the body.
- **Distant metastasis** means cancer cells have spread to form tumors far from the primary site.

Metastatic cancer might also be described based on how large the new area of cancer is. When only a few cells have spread, it's called a **micrometastasis.** These small areas are often too small to be seen on an imaging test. A larger area of cancer spread might be called a **macrometastasis,** but this term is used less often.

What's the difference between metastatic cancer, cancer recurrence, and a second cancer?

A **metastatic cancer** is cancer that has spread. A **cancer recurrence** is cancer that has returned after treatment. A **second cancer** is a different, unrelated cancer. The differences depend on when and where the cancer is found, and what type of cancer it is.

When cancer spreads to a new area, it's still named after the part of the body where it started. For instance, breast cancer that has spread to the lungs is breast cancer in the lungs, not lung cancer. This is because the cancer is made up of breast cancer cells, even though they have spread (metastasized) outside of the breast. This distinction is important because treatment is based on where the cancer started and the type of cancer cells involved.

Sometimes the metastatic tumors have already begun to grow when the cancer is first found. And sometimes, a metastasis may be found *before* the original (primary) tumor is found. If a cancer has already spread to other parts of the body before it is first diagnosed, it may be hard to figure out where it started.

- If cancer has gone away after treatment but then comes back, it's called a **recurrent cancer.** Cancer can recur in the same place it started, but it can also

come back somewhere else in the body. A cancer that has come back in a different place from where it started is a **metastatic recurrence.**
- A **second cancer** is a separate type of cancer, unrelated to the first cancer. A second cancer is different from recurrence and metastasis because the cancer cells are different from the cells of the original cancer.

If cancer is found somewhere new, your cancer team will likely do a biopsy of the new area to find out if it is a metastasis or a second cancer. To learn more, see Understanding Recurrence[2] and Second Cancers[3].

How do I know if cancer has advanced or spread?

When you are first diagnosed

If you are diagnosed with cancer, your cancer care team will do additional tests to find out how advanced the cancer is and whether it has spread. This process is called staging[4].

During treatment

As you go through treatment, your care team will watch you closely for signs to find out how treatment is working. If exams and tests show the cancer is growing or spreading, it might mean you need a different type of treatment.

After treatment

For months or years after treatment, you will have follow-up visits[5] with your cancer care team to check for signs the cancer has come back. You might get imaging scans, blood tests, or other tests to look for metastasis.

Symptoms of advanced or metastatic cancer

You might also notice symptoms if cancer has spread. General signs and symptoms of advanced and metastatic cancer can include:

- Loss of energy and feeling tired and/or weak: This can get so bad that you may have a hard time doing everyday tasks like bathing or getting dressed. People with advanced cancer often need help with these things.
- Weight loss (without trying)

- Pain
- Shortness of breath or trouble breathing
- Finding a new lump or swollen lymph node

Advanced and metastatic cancers can cause many other symptoms, depending on the type of cancer and where it has spread.

Hyperlinks

1. www.cancer.org/cancer/survivorship/long-term-health-concerns/cancer-as-a-chronic-illness.html
2. www.cancer.org/cancer/survivorship/long-term-health-concerns/recurrence.html
3. www.cancer.org/cancer/survivorship/long-term-health-concerns/second-cancers-in-adults.html
4. www.cancer.org/cancer/diagnosis-staging/staging.html
5. www.cancer.org/cancer/survivorship/long-term-health-concerns/importance-of-follow-up-care.html

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How Does Cancer Spread?

Cancer can spread from where it started (the primary site) to other parts of the body. When cancer cells break away from a tumor, they can travel to other areas of the body through either the bloodstream or the lymph system.

How do cancer cells spread to new parts of the body?

When cancer cells break away from a tumor, they can travel to other parts of the body, usually through the bloodstream or the lymph system[1]. (Lymph vessels are much like blood vessels, except they carry a clear fluid and immune system cells through the body.)

For cancer cells to spread to new parts of the body, they must:

- Break away or escape from the original tumor and enter the bloodstream or lymph system.
- Attach to the outside wall of a blood or lymph vessel, move through the vessel wall,

and flow with the blood or lymph to a new organ or lymph node and invade it.
- Find ways to grow and thrive in their new location.
- Avoid attacks from the body's immune system.

Cancer cells that travel through the bloodstream may reach distant organs. If they travel through the lymph system, the cancer cells may end up in lymph nodes (small, bean-sized collections of immune cells) or they could spread to other organs.

The nervous system can be affected when a cancer spreads, too. It's possible for cancer cells to enter nerves or release substances that can affect how nerves function to protect the body. In these cases, the cancer cells invade the outer part of the nerve (called the sheath) and spread up toward the skin or deeper into the body. This is called **perineural spread or invasion**. Either way, most of the escaped cancer cells die or are killed before they can start growing somewhere else. But one or two might settle in a new area, begin to grow, and form new tumors. This spread of cancer to a new part of the body is called **metastasis**.

What determines where a cancer might spread?

The type of cancer a person has affects where it might be most likely to spread.

The location of the cancer matters because most cancer cells that break free from the primary tumor are carried in the blood or lymph system until they get trapped in the next "downstream" organ or set of lymph nodes. This explains why breast cancer often spreads to underarm lymph nodes, but rarely to lymph nodes in the belly. Likewise, many cancers commonly spread to the lungs. This is because the heart pumps blood from the rest of the body through the lungs' blood vessels before sending it elsewhere.

The type of cells that the cancer grew from matters, too. Some organs or areas in the body have tissues that certain cancer cells are able to survive and grow in better than others. This is often called the **tumor microenvironment** and can be different for different cancer types. For example, prostate cancer often spreads to the bones because bone tissue provides the kind of environment prostate cancer cells prefer. Certain gene changes[2] (mutations) in cancer cells might also affect where they can spread. Some gene changes make it easier for cancer cells to live in certain organs.

Where does cancer most often spread?

In addition to lymph nodes, the lungs, liver, bones, and brain are common places certain cancers might spread to. But different types of cancer tend to spread to different places.

Here are some common types of cancer and the places they most often spread:

- **Bladder cancer** may spread to the bones, liver, or lungs
- **Breast cancer** may spread to the bones, brain, liver, or lungs
- **Colorectal, ovarian, stomach,** and **pancreatic cancers** may spread to the liver, lungs, or peritoneum
- **Kidney cancer** may spread to the adrenal glands, bones, brain, liver, or lungs
- **Lung cancer** may spread to the adrenal glands, bones, brain, liver, or the other lung
- **Melanoma** may spread to other areas of the skin, to muscle tissue, or to the bone, brain, liver, or lungs
- **Prostate cancer** may spread to the adrenal glands, bones, liver, or lungs

Hyperlinks

1. www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html
2. www.cancer.org/cancer/understanding-cancer/genes-and-cancer/gene-changes.html

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Managing Advanced Cancer

Many advanced cancers can’t be cured, but they can most often be treated. You should know if the goal of treatment is to cure the cancer, slow its growth and help you live longer, or relieve symptoms. Even if the goal is not to cure the cancer, physical symptoms can be managed most of the time.

Making treatment choices

Treatment choices for advanced cancers depend on the type of cancer, where the cancer started, and how much it has spread into the area around it. In general, cancer that has spread will need treatment that reaches all parts of the body, such as chemotherapy[1], targeted therapy[2], immunotherapy[3] or hormone therapy.[4] These treatments are taken by mouth or infused into the blood. Therapies, such as surgery[5] or radiation[6], only treat a certain part of the body but can help prevent or relieve certain symptoms. And relieving symptoms like pain, constipation, upset stomach, and vomiting can help you feel better. Something can almost always be done to help

maintain or improve your quality of life.

The goal of any cancer care is to give you the best possible quality of life. You want to feel as good as you can for as long as you can. Talk to your cancer care team about what's important to you. Tell them what you want to be able to keep doing. You have the right to be the decision-maker in planning your treatment.

Some people might want to continue cancer treatment if there's a chance the treatments may help. Others might decide that the side effects[7] or other burdens of cancer treatment, such as cost, travel and time away from home, are not worth the possible benefits. So some people may decide that they no longer want this type of treatment. This may be hard for some of your loved ones to accept, but you have the right to make this decision. It often helps to include your loved ones in these tough choices. Either way, you should get to make the decisions that are best for you.

Managing symptoms of advanced cancers

While advanced cancers cannot be cured, there are still things that can be done to help you feel as good as possible for as long as possible. This care, aimed at relieving suffering and improving the quality of life, is called **palliative care**.

Palliative care[8] focuses on the patient and family rather than the disease. It treats symptoms caused by the cancer and treatment. Some health care providers call this supportive care.

You might have many symptoms when cancer is in different parts of your body. Not everyone will get all of these symptoms. In many cases, these symptoms are not caused directly by the cancer or can have more than one cause. Your cancer care team can tell you the most about where the cancer is and what symptoms it might cause.

Common symptoms that are treated and controlled or relieved by palliative care can include the following:

- Pain[9]
- Depression and anxiety[10]
- Fatigue and weakness[11]
- Loss of appetite[12]
- Weight changes[13]
- Nausea and vomiting[14]
- Constipation[15]

- Belly swelling (ascites)[16]

Cancer that has spread to certain parts of the body such as the brain, bone, liver, and lungs may cause other symptoms. You can find more information about these metastases in other pages in this section.

Again, the goal of palliative care is to prevent and relieve suffering and support the best possible quality of life for patients and their families, regardless of the stage of the disease.

Other symptoms you may have include shortness of breath and bowel and kidney blockages. These are very serious situations and require treatment right away.

Shortness of breath (dyspnea)

Shortness of breath is one of the most common symptoms that people with advanced cancer can have. Shortness of breath can have many causes. It can be caused by cancer or cancer treatment. It may also be caused by other problems such as infection[17], low blood counts[18], or other lung conditions.

Being short of breath can be very troubling. It can limit what people are able to do and can make fatigue[19], anxiety[20], and depression[21] worse. Not everyone whose cancer has advanced will become short of breath, but it helps to know what to expect, when to call your doctor, and how it might be managed.

Shortness of breath can happen quickly or build over time. If you have shortness of breath[22] that comes on quickly, be sure to call your doctor right away. This may be caused by a problem that needs to be treated as soon as possible.

Call 911 if new shortness of breath starts suddenly and doesn't get better; your skin, mouth, or nail beds look pale or blue in color; or if you have chest pain or pressure, trouble speaking, dizziness, or weakness.

For many people with advanced cancers, shortness of breath comes on over time rather than quickly. It may get better then get worse again but doesn't totally go away. For many people, shortness of breath gets worse with certain movement or activity.

Managing shortness of breath depends on the cause. Talk to your cancer care team about what you might be able to do to help, and if there are treatments that might work for you.

If you have talked with your doctor and don't need to immediately be seen or treated for shortness of breath, there are things that can help make you more comfortable.

- Set up a fan so that it is directed at your cheek.
- Sit up or raise your upper body to a 45° angle by raising the bed or using pillows behind your back.
- Inhale deeply through your nose and exhale slowly through puckered lips. For example, exhale for twice as long as it took to inhale. (This is called pursed-lip breathing.)
- Try mindfulness and relaxation strategies.[23]
- Try ways to distract yourself, such as by listening to music, watching TV, or reading.
- Try self-management techniques.
- Ask about acupressure or reflexology and find out if it's available in your area.
- Ask your doctor whether there are medicines or treatments that might help you.

Oxygen may be helpful, but only if your blood oxygen levels are low.

Keep in touch with your cancer care team and let them know if your shortness of breath gets worse or doesn't get better with treatment.

Bowel blockage

Cancer in the abdomen (belly) sometimes blocks the bowels. The blockage (obstruction) keeps food and stool from moving through. This leads to severe cramping, belly pain, and throwing up. If the blockage in the bowels isn't opened, the pressure that builds up can create a hole (a perforation) that lets the contents of the intestine spill into the abdomen. Bacteria from the intestine can cause a severe infection. This can cause even worse pain, and nausea and vomiting. An obstruction is very serious and must be treated right away.

It can be hard to treat obstructions with surgery because many patients are too sick. Other times the cancers are so large that surgery may not help for long. The risks of surgery should be compared to the chances of returning to a comfortable life.

If the bowel is blocked in only one area, a small, stiff tube called a stent may be put through the blocked area to help keep it open. This can be done without surgery and may be an option for some blockages of the colon and the small intestine.

If a stent won't work operations calledcolostomies[24] or ileostomies[25] may help. The

surgeon cuts the large or small bowel above the block. The cut end is then connected to an opening (stoma) on the skin of the abdomen (belly). Stool then comes out into a bag that's put around the opening.

If surgery or stents aren't practical, treatment of the symptoms may be the good choice. For instance, the stomach's contents can be removed through a tube placed through the nose, down the throat, and into the stomach. (This called a nasogastric or NG tube.) The NG tube is attached to a suction device to gently take out the contents of the stomach. This often relieves nausea and vomiting and may help keep pressure from building up and causing other problems.

If an NG tube is helping, it sometimes can be replaced by a tube that goes right into the stomach through the skin on the belly (this is called a G tube).

If needed, you can get a shot or a patch for pain and nausea. There are medicines that can decrease the amount of liquids made by the stomach and improve some of the symptoms.

Kidney blockage

Cancer in the abdomen (belly) can sometimes block the thin tubes (ureters) that carry urine from the kidneys to the bladder. If this happens, you might stop urinating. Urine backs up in the kidneys, and they stop working. This can make you feel very tired and sick to your stomach.

In many cases, a small, stiff tube called a stent can be threaded up from the bladder and through the ureters to keep them open and let urine flow again. Another option is to put a tube through the skin and right into the kidney to allow the urine to drain into a bag outside the body. This is called a nephrostomy.

More resources

The goal of any cancer care is to give you the best possible quality of life. You want to feel as good as you can for as long as you can. Talk to your cancer care team about what's important to you. Tell them what you want to be able to keep doing. You have the right to be the decision-maker in planning your treatment.

Learn more: Advanced Cancer Care Resources - A Guide for People Living with Cancer and Their Caregivers[26]

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
3. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html
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Bone Metastases

When cancer cells spread to the bones (bone metastases), they can cause many problems such as pain, broken bones, or more serious problems. Almost all cancers can spread to the bone, but cancers that often spread there include breast[1], lung[2], prostate[3], kidney[4], melanoma[5], ovarian[6], and thyroid[7]. The spine is the most common site for bone metastases. Other common sites are the hip bone (pelvis), upper leg bone (femur), upper arm bone (humerus), ribs, and the skull.

- Signs and symptoms of bone metastases
- How are bone metastases found?
- Drugs to treat bone metastases

Normally, bone is maintained by 2 kinds of bone cells.

- Osteoblasts form new bone
- Osteoclasts break down old bone

When these cells are both working the way they should, new bone is always forming while old bone is being broken down. This helps keep the bones strong.

When cancer cells spread to the bone, they block or speed up the action of the osteoblasts and osteoclasts, too much bone is broken down or too much bone is made. Either of these changes can make bones break easier than normal.

Bone metastases (mets) can cause other problems as well:

- When cancer spreads to the bones of the spine, it can press on the spinal cord. This can cause nerve damage that **may lead to paralysis if not treated right away**.
- As too much bone dissolves, calcium is released into the blood. This can lead to problems caused by high blood calcium levels (hypercalcemia).

Signs and symptoms of bone metastases

It's very important to tell your cancer care team about any new symptoms you have. Finding and treating bone metastases early can help prevent problems later.

Pain

Bone pain is often the first symptom of cancer that has spread to the bone. The pain may come and go at first. It tends to be worse at night and may get better with movement. Later on, it can become constant and may be worse during activity. The bone might be so weak that it will break. This can often be prevented if the bone metastasis is found early.

There are many ways to treat pain caused by bone metastases. The treatment will depend on the type of cancer as well as the number and location of bone metastases. Sometimes treatment being used to treat the main (primary) cancer will help shrink the metastases. Other times, medicines made to stop the effects of the cancer on the bone may be given (See *Drugs to treat bone metastases* below). In addition, some more local

treatments, like radiation therapy[8] or even surgery[9], can help relieve the pain.

Pain medicines are also very helpful. Many kinds of pain medicines are used to treat cancer pain[10]. There are also a lot of ways the medicines can be taken, such as pills, patches, and pumps that let you put the medicine into your body when you need it.

Fractures (broken bones or breaks)

Breaks might happen with a fall or injury, but a weak bone can also break during normal activities. These breaks often cause sudden, severe pain. Fractures most often happen in the long bones of the arms and legs and the bones of the spine. Sudden pain in the middle of the back, for instance, may mean a bone in the spine has broken.

When possible, your doctor will try to prevent the fracture. Medicines may be given to try and strengthen the bones which can help prevent fractures (see *Drugs to treat bone metastases* below). Cancer in the bone may cause severe pain for a while before the bone breaks. If an x-ray shows an arm or leg bone is likely to break, surgery may be done to put a metal rod in the weak part of the bone.

If the bone has already broken, surgery is usually done to put a steel support over the broken part of the bone. If bones of the spine break, a bone cement might be injected into the damaged bones (vertebroplasty or balloon kyphoplasty). This can help support the bone.

Radiation treatments may be given after surgery to try to prevent any more damage. The radiation won't make the bone stronger, but it might stop further damage.

If you feel confused, dizzy, or weak, talk with your cancer care team about safety equipment you can use at home, such as shower chairs, walkers, or handrails.

Spinal cord compression

Cancer growing in the bones of the back can press on the spinal cord. One of the earliest symptoms of spinal cord compression is pain in the back or neck.

If a spinal cord compression isn't treated right away, the person can become paralyzed. Most often this affects the legs (so that the person can't walk) but if the tumor is pressing on the spinal cord in the neck, the arms and the legs can be affected.

Spinal cord compression can show up in different ways:

- Back pain (sometimes with pain going down one or both legs)
- Numbness of the legs or belly
- Leg weakness or trouble moving your legs
- Loss of control of urine or stool (incontinence) or problems passing urine

If you notice symptoms like these, call your doctor right away or go to the emergency room.

If the cancer is just starting to press on the spinal cord, treatment can help prevent paralysis and help relieve the pain. Radiation is often used as part of the treatment, sometimes with a type of medicine called a steroid or corticosteroid. The radiation often is started right away, within the first 12 to 24 hours.

If the spinal cord is already showing signs of damage (such as weakness in the legs), immediate surgery followed by radiation may be the best treatment. This may allow a patient to walk and function better than if they get radiation alone. People with very advanced cancer or other serious medical problems may not be able to have this kind of surgery.

High blood calcium levels

When cancer spreads to the bones, too much calcium from the bones can be released into the bloodstream. This is called hypercalcemia.

High blood calcium levels can cause problems such as

- Constipation
- Passing urine often
- Feeling sluggish or sleepy
- Feeling thirsty all the time and drinking lots of liquids
- Muscle weakness
- Muscle and joint aches
- Confusion
- Coma
- Kidney failure.

Treatment includes giving large amounts of intravenous (IV) fluids to protect the affected kidneys and medicines such as bisphosphonate drugs (see below) to bring blood calcium levels down quickly. Once the calcium level is back to normal, treating the

cancer can help keep the calcium level from getting too high again.

How are bone metastases found?

Bone mets may be seen on imaging tests that take pictures of the body. Some common imaging tests used to check for bone mets include:

- X-ray
- CT or CAT scan
- MRI
- PET scan
- Bone scan

Bone mets may be found because a person is having pain, or if the doctor is looking to see if the cancer has spread anywhere else in the body. Sometimes, a bone biopsy may also be done.

Drugs to treat bone metastases

The drugs used most often for treating bone problems in people with bone metastases are the bisphosphonate drugs **pamidronate (Aredia)** and **zoledronic acid (Zometa)** and the drug **denosumab (Xgeva)**. These drugs are given intravenously (IV or into a vein) or subcutaneously (under the skin). Most patients are treated once a month at first, but may be able to be treated less often later on if they are doing well. Treatment with one of these drugs can help prevent further bone damage and events related to weakened bones such as fractures, hypercalcemia, and spinal cord compression.

These treatments can have a rare but serious side effect called osteonecrosis of the jaw (ONJ). Patients complain of pain and doctors find that part of the jawbone has died. This can lead to an open sore that doesn't heal or tooth loss in that area. The jawbone can also become infected. Having jaw surgery or having a tooth removed can trigger this problem. It is best to avoid these procedures while you are taking one of these medicines. One way to avoid these dental procedures is to maintain good oral hygiene by flossing, brushing, making sure that dentures fit properly, and having regular dental checkups. Any tooth or gum infections should be treated right away. (Dental fillings, root canal procedures, and tooth crowns do not seem to lead to ONJ.) If ONJ does occur, the doctor will stop the bone medicine.

Your doctor will probably recommend that you have a dental checkup before starting

treatment. That way, any dental problems can be taken care of before starting the drug. They might also recommend taking calcium and Vitamin D supplements while on the medicine to help your body build bone.

Hyperlinks

1. www.cancer.org/cancer/types/breast-cancer.html
2. www.cancer.org/cancer/types/lung-cancer.html
3. www.cancer.org/cancer/types/prostate-cancer.html
4. www.cancer.org/cancer/types/kidney-cancer.html
5. www.cancer.org/cancer/types/melanoma-skin-cancer.html
6. www.cancer.org/cancer/types/ovarian-cancer.html
7. www.cancer.org/cancer/types/thyroid-cancer.html
8. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
9. www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html
10. www.cancer.org/cancer/managing-cancer/side-effects/pain.html

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Brain Metastases

Brain metastases develop most often in people with lung cancer, breast cancer, and melanoma, but also with other types of cancer. Brain metastases can be found at the same time as the primary cancer or later.

Brain metastases are usually single spots, but some types of cancer can cause meningitis (swelling of the linings of the brain). This is mostly seen with leukemias, lymphomas, or very advanced forms of other types of cancer. Symptoms of meningitis from cancer can be harder to pick out.

Symptoms of brain metastases

Symptoms of brain metastases depend on the location, size and number of growths in the brain, or the amount of swelling. Metastases can push on or cause swelling in specific areas causing specific symptoms. Not everyone with a brain metastasis will have symptoms but most do.

The most common symptoms are:

- Headache
- Not being able to move parts of your body, like an arm or leg
- Sleepiness
- Memory problems
- Changes in emotions or how a person acts
- Problems hearing, seeing, or swallowing
- Seizures
- Nausea or vomiting

Treatment of brain metastases

Steroid medicines, such as dexamethasone, are often used to reduce swelling in the brain around the metastases. This can often help with symptoms right away while further treatment is planned.

Anti-seizure medicines may also be used if a patient has had a seizure. This can help prevent more seizures.

Radiation therapy[1] is often used to manage brain metastases and control symptoms. For people with several brain metastases or meningitis from cancer, whole brain radiation can be used. This can help improve symptoms and prevent them from getting worse.

Surgery is also sometimes used to treat brain metastases, especially if there are no more than three spots. For some people, a specialized procedure called stereotactic radiosurgery[2] may be used. Either procedure is most often followed by whole brain radiation therapy for the best results.

Chemotherapy is not usually a treatment for brain metastases because these medicines have a hard time getting into the brain. However, for people with meningitis from cancer, chemotherapy may be injected right into the fluid that surrounds the brain and spinal cord. This can be done during a lumbar puncture (needle into the back) or through a device called an Ommaya reservoir.[3]

An Ommaya reservoir is a dome-like device that is placed under the skin of the head and accessed with a needle. If the patient has an Ommaya reservoir, they can get chemo into the fluid that surrounds the brain and spinal cord without having to get repeated lumbar punctures.

For a few types of cancer, there are new medicines that can get into the brain when given into a vein. Your cancer care team will let you know if this treatment is an option for you.

Hyperlinks

1. www.cancer.org/cancer/types/brain-spinal-cord-tumors-adults/treating/radiation-therapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/radiation/external-beam-radiation-therapy.html
3. www.cancer.org/cancer/types/brain-spinal-cord-tumors-children/treating/surgery.html

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Liver Metastases

The liver is a common site for metastases from many cancer types. Cancers that spread to the liver most often are colorectal cancer, as well as breast, esophageal, stomach, pancreatic, lung, kidney, and melanoma skin cancers.

Symptoms of liver metastases

Cancer in the liver can cause different symptoms based on how much of the liver is involved. Some common symptoms include

- Loss of appetite
- Feeling tired or weak
- Fever
- Itchy skin
- Yellowing of the whites of the eyes or skin (jaundice)
- Bloated belly
- Leg swelling

- Pain in the upper right part of the abdomen (belly) (less common)

If there are a lot of metastases in the liver and it can't work well, people can get a condition called **hepatic encephalopathy**. This can cause confusion, sleepiness, and even coma.

Treatment of liver metastases

Surgery to remove the metastases may be an option if there are a small number of tumors in the liver and they are not in areas that would affect normal liver function. A different procedure called ablation[1] might also be an option. In ablation, a thin needle is put into the tumor. The treatment (such as a high energy current) is passed through the needle to destroy the cancer cells.

Radiation therapy[2] may also be an option for treating liver metastases. This may involve radiation to the whole liver. Or if there are a small number of metastases, a specialized procedure called stereotactic radiosurgery[3] may be used.

Chemotherapy may be used for certain kinds of cancer. This may be given into a vein in your arm or right into a blood vessel leading to the liver.

Sometimes a procedure can be done to block the blood supply to the cancer. This is called embolization[4].

If a person has hepatic encephalopathy, treatment will depend on how severe symptoms are. A person who is confused, sleepy, or in a coma will likely be treated with medicines such as lactulose, lactitol, or rifaximin. These medicines decrease the level of one of the toxins (ammonia) that can build up in the blood.

Hyperlinks

1. www.cancer.org/cancer/types/liver-cancer/treating/tumor-ablation.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
3. www.cancer.org/cancer/managing-cancer/treatment-types/radiation/external-beam-radiation-therapy.html
4. www.cancer.org/cancer/types/liver-cancer/treating/embolization-therapy.html

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Lung Metastases

The types of cancer that most often spread to the lungs include breast, colon, rectum, head and neck, kidney, testicular and uterine cancers, as well as lymphomas. Other types of cancer can also spread to the lungs, but do so less often.

Symptoms of lung metastases

The most common symptoms of lung metastases are:

- Coughing
- Bringing up blood when coughing.
- Chest pain
- Shortness of breath
- Fluid around the lungs
- Decreased appetite
- Weight loss

Treatment of lung metastases

Treatment for lung metastases is usually based on the main type of cancer (primary site) the person has. Treatment may include chemotherapy,[1] immunotherapy[2] or

radiation therapy,[3] or a combination of these.

Surgery may be an option if there are a small number of lung metastases and there are no metastases in other parts of the body. Also, surgery would only be used if the main cancer is under control.

Controlling symptoms is important, especially if treatment for the main cancer is not effective or may take a while to help. Shortness of breath[4] can be one of the hardest feelings to deal with. Morphine-like medicines (opioids) can be used to help decrease the feeling of shortness of breath. Anti-anxiety medicines may be helpful if the morphine-like medicines don't work.

Having trouble breathing can make you feel anxious[5], worried, and even like you are in a panic. Some patients find the steps below helpful.

- Relaxation methods[6]
- Distraction (watching television, reading, etc.)
- A fan blowing cool air on you

Pain[7] can also be hard to deal with, especially if you have other symptoms. Talk to your healthcare team about how you can use medicines and supportive methods to treat your pain.

Pleural effusion (build up of fluid around the lungs) can sometimes happen when there is cancer in the lungs. The fluid can keep the lungs from filling with air and make you short of breath. If a pleural effusion causes symptoms, the usual treatment is antibiotics and draining the fluid (called a thoracentesis) using a small tube. This may need to be done more than once before the fluid stops building up. If the fluid keeps coming back, a procedure to seal the space around the lung may be tried. Or a tube that can be left in place for a longer time may be placed.

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html
3. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
4. www.cancer.org/cancer/managing-cancer/side-effects/shortness-of-breath.html
5. www.cancer.org/cancer/managing-cancer/side-effects/emotional-mood-

changes/anxiety.html
6. www.cancer.org/cancer/managing-cancer/side-effects/pain/cancer-pain/non-medical-treatments-for-cancer-pain.html
7. www.cancer.org/cancer/managing-cancer/side-effects/pain.html

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Coping with Advanced and Metastatic Cancer

Living with advanced cancer can be very different for each person. It is important to understand what you can expect with your type[1] and stage [2]of cancer. Set up time to

talk to your cancer care team to talk about your concerns and ask your questions.

- Making treatment decisions about advanced cancer
- Facing family issues
- Finding hope
- Finding support

You may want to ask questions such as:

- What do you think I should expect at this point?
- What are my options? Are there effective treatments available for me?
- What's the goal of treatment right now? Control of the cancer? Comfort?
- How long do you think I can live with this cancer? What's the range of survival times for people in my situation? Am I going to die soon?
- How often will I need treatment or need to see the doctor?
- What tests will I need to watch for changes in the cancer?
- What symptoms do I need to watch for and tell you about?
- What can be done for symptoms I have (pain, fatigue, nausea, etc.)?
- What if I decide I don't want any more treatment?
- What support options are there for me?
- How will I pay for treatment? Will my health insurance cover it?

Making treatment decisions about advanced cancer

Getting answers to your questions can help you decide what your next steps should be. Will you pursue treatment to try and manage your cancer on an ongoing basis, or will you decide that you'd rather not undergo treatment?

Palliative care[3] can be helpful for anyone with advanced cancer, whether they decide to get more cancer treatment or not. Palliative care is not the same as hospice. Palliative care focuses on improving quality of life by helping patients and caregivers manage the symptoms of a serious illness and side effects of treatment. Palliative care can be helpful for people of any age and at any stage in a serious illness. Palliative care should be used whenever a person has symptoms that need to be controlled.

For some people, advanced cancer can be managed as a chronic illness[4]. With this approach, the cancer and symptoms can be controlled for a long period of time with cancer therapy. Palliative care can be provided at the same time to control symptoms of

the cancer and the treatment.

For some, the best option may be to not get more treatment and instead focus on having the best quality for the rest of their lives. Palliative care can be very helpful in managing symptoms, dealing with the feelings about having cancer, and handling concerns about death. When a person nears the end of their life, a transition is often made to hospice[5].

What is most important is that each person makes the best decision for themselves[6]. It is essential to understand your options and decide what is best for you.

Facing family issues

Illness that goes on for months or even years can put a huge stress on the family. The longer the stress lasts, the more at risk the family is for mental distress[7]. Family members may become exhausted in body and mind. Fatigue added to worry and fear can take a toll.

Advanced cancer changes the way family members relate to one another. Families that can solve conflicts well and who support each other tend to do best in dealing with a loved one's cancer. Families who found problem-solving hard in the past are likely to have more trouble dealing with this stressful situation. You might want to meet with a counselor and work together to plan how best to support each other and plan for problems that may come up.

Roles within the family may change, too. How family members take on new tasks and fill in for the person with cancer affects how they will adjust to losing that person.

For the person with cancer, the changes in family roles can trigger the grief that comes with loss. For instance, a woman who's too sick to get out of bed may feel the loss of her role as a wife and/or mother. Understanding this and finding ways for her to still be involved in her family's day-to-day life may help both her and her family.

People with cancer often say that lack of communication in their families is a problem. Changes in duties can cause resentment and anxiety. Family counseling might help family members learn to deal with the changes that are taking place. It can also help members learn to discuss their feelings more comfortably. Counseling is especially helpful in families where some members don't feel comfortable openly talking about their feelings.

The needs of family members and caregivers are important, too. See our information for

caregivers and family or call us to learn more.

Finding hope

Hope is an important part of everyday life. Hope gets many of us out of bed in the morning and keeps us going throughout the day.

If you have advanced cancer, you can still have hopes and dreams, even though some of these might have changed. Your hope might be to have a pain-free day, or to do something special with a family member. Just sharing and talking openly can be a hope for people with cancer and their families. There may also be real hope for relief of symptoms and slowing down the growth of the cancer.

And there's always hope to make the most of the time you have left – for good times with family and friends, times that can be filled with happiness and meaning. Living with this type of uncertainty[8]is not easy, but for many people, this is a good time to refocus on the most important things in life. Now is the time to do things you've always wanted to do and stop doing the things you no longer want to do.

Finding support

Being told you have advanced cancer can be very hard for patients, families, and caregivers. Common feelings during this life-changing experience include anxiety[9], distress[10], and depression[11]. But you should not have to deal with these feelings on your own.

Support from friends and community

People with life-threatening illnesses have a strong need for other people in their lives. They need others to help them deal with their illness and its emotional effects. Support can come from family and friends; members of a church, synagogue, or other place of worship; mental health professionals; support groups; or community members. Asking for support is one way you can take some control of your situation.

If you don't get enough support from friends and family, look for it elsewhere. There are others in your community who need your companionship as much as you need theirs. The mutual support of others with cancer might also be a source of comfort. Check with your cancer care team for resources in your community.

Support from a counselor

If you have ongoing feelings that interfere with your life, or if you just want to communicate and cope the best you can, consider talking with a mental health professional. It can often be very helpful to talk with an expert. Social workers, psychologists, psychiatrists and psychiatric nurse practitioners are all licensed mental health professionals. These counselors can be especially helpful if you are struggling with anxiety,[12]distressordepression.

You can find one by asking your cancer care team or through the nearest large hospital in your area. Even one session with a licensed mental health provider may help you and your family focus on what matters most. Your cancer care team can work with you to find the right provider for you[13].

Support programs

Support programs come in all kinds of forms and include one-on-one or group counseling and support groups. A support group can be a powerful tool for patients and families. Talking with others who are in situations like yours can help ease loneliness. You can speak without feeling judged. And you can often get useful ideas from others that might help you. The American Cancer Society can help you find many different support programs in your community.[14]

Some groups are formal and focus on learning about cancer or dealing with feelings. Others are informal and social. Some groups include only people with cancer or only caregivers, while others include spouses, family members, or friends. Some groups focus on specific types of cancer or stages of disease. The length of time groups meet can range from a certain number of weeks to an ongoing program. Some programs have closed membership and others are open to new, drop-in members. For those who cannot attend meetings or appointments, phone counseling is offered by some organizations.

Online groups[15] are another option. Some people find online support groups helpful because they like the privacy it can offer. It may be comforting to chat with other people in situations much like yours, without having to share any more than you want to. But it's important to remember that chat rooms and message boards are not the best source of medical information, especially if they are not monitored by trained professionals or experts. Each person's situation is unique, and what helps one person might not be right for someone else.

Support in any form allows you to discuss your feelings and develop coping skills. Studies have found that people who take part in support programs often have an improved quality of life, including better sleep and appetite.

Hyperlinks

1. www.cancer.org/cancer/types.html
2. www.cancer.org/cancer/diagnosis-staging/staging.html
3. www.cancer.org/cancer/managing-cancer/palliative-care.html
4. www.cancer.org/cancer/survivorship/long-term-health-concerns/cancer-as-a-chronic-illness.html
5. www.cancer.org/cancer/end-of-life-care.html
6. www.cancer.org/cancer/managing-cancer/making-treatment-decisions.html
7. www.cancer.org/cancer/managing-cancer/side-effects/emotional-mood-changes/distress.html
8. www.cancer.org/cancer/survivorship/long-term-health-concerns/cancer-as-a-chronic-illness.html
9. www.cancer.org/cancer/managing-cancer/side-effects/emotional-mood-changes/anxiety.html
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