Advanced Cancer

It may be hard to think and talk about cancer that has spread or that is no longer responding to treatment. Everyone with cancer hopes that their cancer will be cured, but this is not always possible.

You can still get treatment for advanced cancer, but the goal may no longer be to cure it. Often, care focuses on ways to control the cancer and the symptoms it causes so you can enjoy life and feel as good as possible for as long as possible.

Doctors diagnose advanced cancer based on things like:

- How much cancer is in your body
- How far the cancer has spread
- How much the cancer has affected your physical condition
- Whether there is a treatment that will work

Here we will try to help you better understand what advanced cancer is, how it's diagnosed, and what can be done for it. Talk to your cancer care team about any questions or concerns you have. They are best able to help you understand your situation, including the type and stage (extent) of your cancer, what your treatment options are, and the likely outcomes.

Understanding your situation and your options can help you decide which course of action best suits you. You, your loved ones, and your medical team have important choices to make, and you still control what happens.

What is advanced cancer?

Different health professionals may not mean the exact same thing when they use the term *advanced cancer*. In this document, when we refer to advanced cancer, we are talking about cancers that cannot be cured. That means that these cancers will not go away and stay away completely with treatment. If a cancer can't be cured, it will grow and spread and, over time, will likely end your life.

Advanced cancers have usually spread from where they started to other parts of the body. This is known as *metastatic cancer*. But not all advanced cancers are metastatic. For example, some cancers that start in the brain may be considered advanced because they cannot be cured and are life-threatening even though they have not spread to other parts of the body.

In the same way, 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. For more on metastatic cancer, see the section called “What is metastatic cancer?”

Another term you may hear is *locally advanced cancer*. This is used to describe cancer that has grown outside the organ it started in but has not yet spread to distant parts of the body. Some of these cancers may be “advanced” as we are using the term here. For example, locally advanced pancreatic cancer is often not curable. But other locally advanced cancers, such as some prostate cancers, may be cured.

> *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.*

Advanced cancer can often be treated. Even if the cancer cannot be cured, treatment can sometimes shrink the cancer or slow its growth, help relieve symptoms, and help you live longer. Some people can live for many years with advanced cancer.

Every person’s cancer is unique. Your cancer may respond differently to treatments and grow at a rate different from the same type of cancer in someone else. 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.

As advanced cancer grows, it can cause symptoms that may need to be treated to help control them. These symptoms can almost always be treated, even when the cancer itself is no longer responding to treatment.

What is recurrent cancer?

Recurrence means that the cancer has come back in a patient who was thought to be cancer-free (in remission) after treatment. Cancer can come back:

- In or near the same place it started – this is called *local recurrence.*
- In lymph nodes near the original site of the cancer – this is called *regional recurrence.*
- In distant parts of the body – this is called *distant* or *metastatic recurrence.*

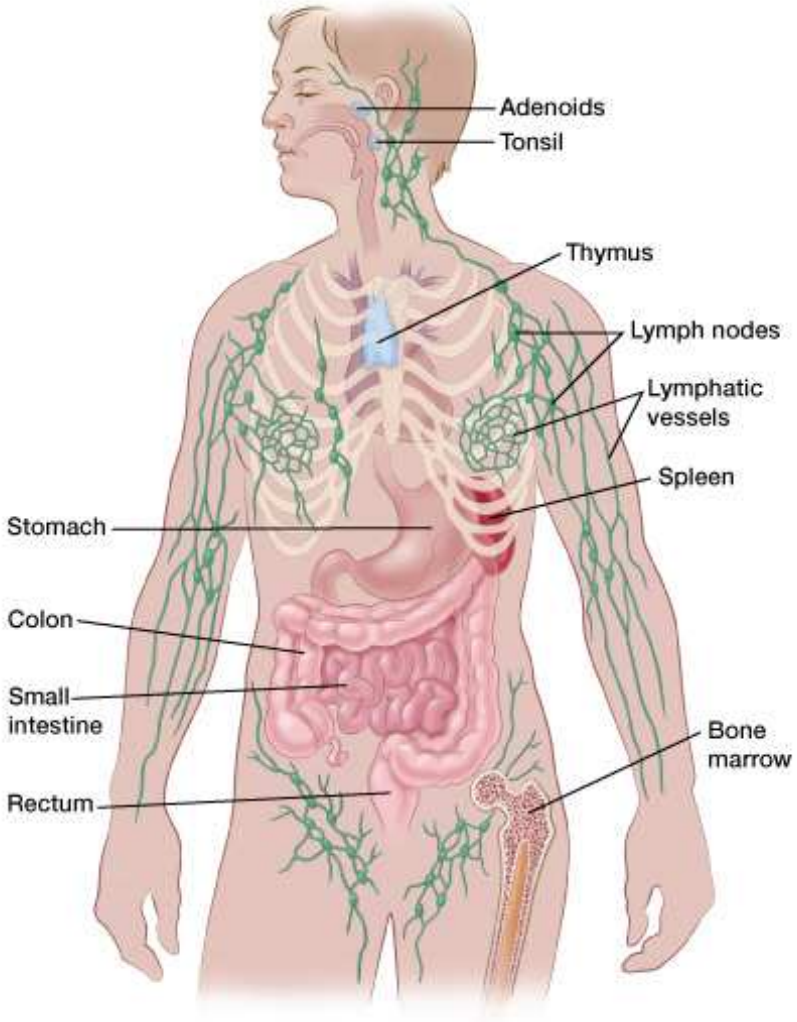
Recurrent cancer is often harder to treat than the original cancer, but it’s not always advanced cancer. For example, a small cancer that had been treated with surgery but then recurs locally (comes back in the same area) can sometimes be treated or even cured with

more surgery. Cancers that recur farther away from the original cancer site are more likely to be advanced cancers.

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. When cancer cells break away from a tumor, they can travel to other areas of the body through the bloodstream or the lymph system (which contains a collection of vessels that carry fluid and immune system cells).

This image shows some parts of the lymph system, like lymph nodes and lymph vessels, as well as organs and tissues that contain many lymphocytes (immune cells)



If the cells travel through the lymph system, they may end up in nearby lymph nodes (small, bean-sized collections of immune cells) or they may spread to other organs. More often, cancer cells that break off from the main tumor travel through the bloodstream. Once in the blood, they can go to any part of the body. Many of these cells die, but some

may 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*.

Cancer cells have to go through several steps to spread to new parts of the body:.

- They have to be able to break away from the original tumor and enter the bloodstream or lymph system, which can carry them to another part of the body.
- They need to attach to the wall of a blood or lymph vessel and move through it into a new organ.
- They need to be able to grow and thrive in their new location.
- They need to be able to avoid attacks from the body's immune system.

Going through all these steps means the cells that start new tumors may no longer be exactly the same as the ones in the tumor they started in. This may make them harder to treat.

Even when cancer has spread to a new area, it's still named after the part of the body where it started. Treatment is also based on where the cancer started. For example, if prostate cancer spreads to the bones, it's still prostate cancer (not bone cancer), and the doctor will recommend treatments that have been shown to help against metastatic prostate cancer. Likewise, breast cancer that has spread to the lungs is still breast cancer, not lung cancer, and is treated as metastatic breast cancer.

Sometimes the metastatic tumors have already begun to grow when the cancer is first found and diagnosed. And in some cases, a metastasis may be found before the original (primary) tumor is found. If a cancer has already spread to many places when it's found, it may be very hard to figure out where it started. If this happens the cancer is called *cancer of unknown primary*. This is discussed in a separate document, *Cancer - Unknown Primary*.

Why cancer cells tend to spread to certain parts of the body

Where a cancer starts often plays a role in where it will spread. Most cancer cells that break free from the original tumor are carried in the blood or lymph until they get trapped in the next "downstream" organ or set of lymph nodes. Once the cells are there, they can start new tumors. This explains why breast cancer often spreads to underarm lymph nodes, but rarely to lymph nodes in the groin. Likewise, there are many cancers that 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 liver is a common site of spread for cancer cells that start in the colon because blood from the intestines flows into the liver.

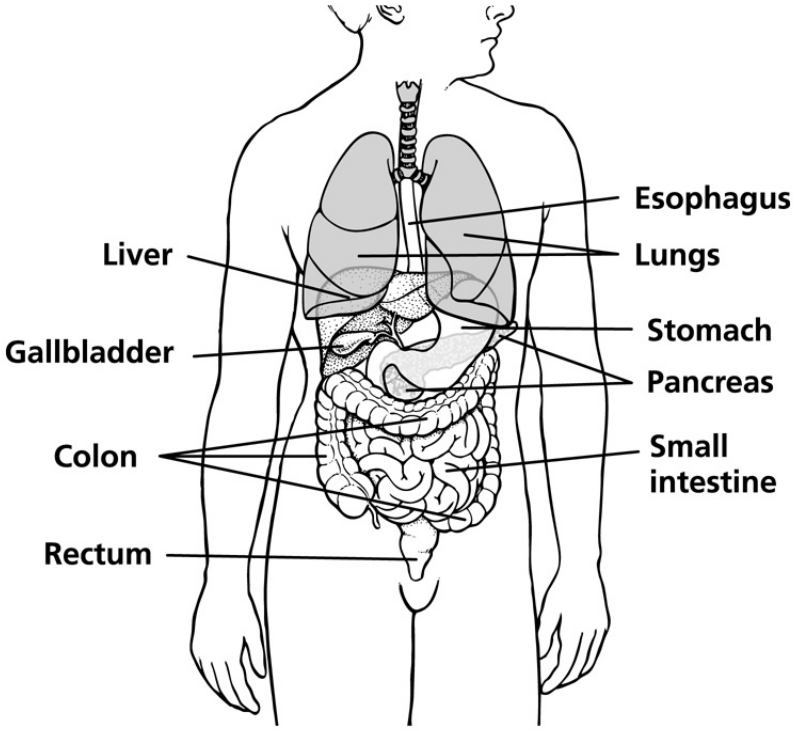
Cancer cells often break away from the main (primary) tumor and travel through the blood and/or lymph system, but they don't always settle in and start new tumors. Most of the time, the cells that broke away die. When cancer does spread to other organs and start to form new tumors, it's because of certain genetic changes in the cells that scientists are now starting to understand. Someday, doctors may be able to tell if a person's cancer is the type that will spread to other organs by looking for these genetic changes. Research is

also focusing on treatments that block or target these genetic changes so the cancer cells can’t spread and grow.

Sometimes the patterns of spread cannot be explained by where things are in the body. Some cancer cells are able to find and invade certain sites far away from where they started. For example, advanced prostate cancer often moves into the bones before spreading to other organs. This “homing” pattern may be caused by substances on the cancer cell surfaces that stick to cells in certain organs.

Which cancers spread where?

This is a brief description of where certain cancers are most likely to spread. It’s not a list of every place where a cancer could spread. For more details on these cancers, see our information on the specific cancer site.



Bladder

Bladder cancer tends to stay in the same area (the pelvis) and grow into nearby tissues such as the pelvic wall. It can also spread to the lungs, liver, and bone.

Brain

Brain tumors rarely spread outside the brain. They mainly grow within the brain and sometimes into the spinal cord.

Breast

Breast cancer most commonly spreads to the bones, but also can spread to the liver, lungs, and brain. As the cancer progresses, it may affect any organ. It can also spread to the skin of the chest (near where the cancer started).

Cervix

Cancer of the cervix tends to grow near where it started, into the vagina and uterus and then other parts of the pelvis, such as the rectum and bladder. It can also grow into the bones and nerves of the spine, and spread to the liver, lungs, and bones.

Colon and rectum

The most common sites for colon or rectal cancer spread are the liver and lungs. These cancers may also spread to nearly any other organ, including the bones and brain.

Rectal cancer can also spread within in the pelvis, where the cancer started. This can be painful because it often grows into nerves and bones in this area.

Esophagus

Esophageal cancer mostly grows near where it started (in the chest and belly). As it progresses, it may grow into nearby organs or major blood vessels, which can make it hard to treat.

Kidney

Kidney (renal) cancer can grow where it started and invade nearby tissues. It can grow from the kidney into the large vein that drains the blood from the kidney (the renal vein). From there it can grow into a large vein that empties into the heart (the inferior vena cava). It can also grow from the kidney into the adrenal gland, which sits on top of the kidney. When it spreads, the lungs and bones are the most common sites.

Leukemia

Because they are already in the blood, leukemias can be considered to have spread throughout the body when they are diagnosed. They can progress by filling the bone marrow with leukemia cells. The normal bone marrow is replaced and cannot make new blood cells.

Some leukemias may spread outside the blood and into the fluid that surrounds the brain and spinal cord. Tumors made up of leukemia cells can also occur in the skin or in other parts of the body, but this is not common. In some types of leukemia, the cancer cells collect in the spleen, causing it to become large. Less often, leukemia cells settle in the liver, causing it to enlarge. In one type of leukemia, the cells deposit in the gums, so that they become red and swollen.

Liver

Liver cancer doesn't often spread outside the liver. It tends to grow throughout the liver as it becomes advanced. If it does spread, it's most often to the lungs or bones.

Lung

Lung cancer can spread to almost any organ of the body, but most often it will spread to the adrenal glands, liver, bones, or brain. It can also spread to the other lung.

Lymphoma

Lymphoma can affect any part of the body. While most start in the lymph nodes, spleen, and/or bone marrow, some start in lymph tissue in the stomach, intestines, or even the eye socket. Lymphomas can spread within the lymph system to distant parts of the body. Less often, they spread outside the lymph system to other organs, such as the lungs, liver, or bone. Lymphomas can affect the brain and spinal cord, either initially (called *primary central nervous system lymphoma*) or as spread to the fluid and tissues (the *meninges*) surrounding the brain and spinal cord. This is called *lymphomatous meningitis*.

Melanoma

Melanoma can spread anywhere in the body. It first tends to go to lymph nodes near where it started, but then can spread to the brain, lungs, liver, and bones. It can also spread to other areas of skin.

Mouth and throat

Cancers of the mouth, throat, or nasal passages tend to stay in the same area. When they spread, it's usually to the lungs. Less often they may spread to the liver or bones.

Multiple myeloma

Multiple myeloma can cause tumors called *plasmacytomas*. These tumors can spread to the bones anywhere in the body, but they rarely spread to other organs.

Ovary

Ovarian cancer most often spreads to the lining of the abdomen (belly) and pelvis (this lining is called the *peritoneum*), the omentum (a layer of connective tissue that drapes the abdominal cavity like an apron), and organs in the pelvis and belly. It can cause a build-up of fluid and swelling in the abdomen. It can also spread to the outer lining of the lungs and cause fluid to build up there. As it becomes more advanced, it may spread to the lung and liver, or, rarely, to the brain or skin.

Pancreas

Pancreatic cancer mainly stays in the abdomen (belly). It tends to grow into nearby tissues and may spread to the liver or other nearby organs. It can also spread to the lungs.

Prostate

Advanced prostate cancer most often goes to the bones. Much less often, it will spread to other organs, including the lungs and liver.

Stomach

Stomach (gastric) cancer tends to spread to nearby tissues and stay within the abdomen (belly). It may also spread to the liver or distant lymph nodes. Spread to the lungs, bones, and brain is less common.

Uterus

Cancer that starts in the uterus can grow into the vagina as well as nearby tissues in the pelvis. It also commonly spreads to the peritoneum (the lining of the abdominal cavity and pelvis) and the omentum (a layer of connective tissue that drapes the abdominal cavity like an apron). Other sites of cancer spread include the liver, lungs, and, less often, bones.

Can advanced or metastatic cancer be prevented?

For now, the best way to keep cancer from growing and spreading is to find it early and remove or destroy it. The American Cancer Society recommends routine early detection tests for some cancers, such as those of the breast, colon, and cervix. People who do not follow these recommendations are more likely to have cancer found after it has already spread. Still, tests to find cancer early are not perfect, so even people who follow these guidelines can have cancer that has spread at the time of diagnosis. And for many cancers, no test so far has helped find the cancer early and helped people live longer.

Patients with certain cancers, such as breast or colorectal cancer, are often given other treatments after surgery to try to kill cancer cells that might have broken away from the primary tumor. This can lower the risk that the cancer will come back and spread.

Researchers are looking for new ways to keep cancer from spreading. For example, drugs are being studied that might block the enzymes that help cancer cells break holes through the walls of blood vessels.

How is advanced cancer found?

Some cancers are more likely to spread than others. But it's hard to know who will develop advanced cancer.

One way is to compare how closely the cancer cells look like normal cells under a microscope. This is called the *grade* of the cancer. The more normal the cells look, the less likely it is that the cancer will spread. Another way to predict cancer spread is related to the size of the tumor. A larger tumor often is more likely to have spread. For some cancers, certain types (based on the way the cells look under a microscope) are more likely to spread.. Also, if the cancer has spread to nearby lymph nodes, it's much more likely to have spread to distant sites. This may not be known until after surgery that includes removing lymph nodes so they can be looked at under a microscope.

Even when these things are known, doctors aren't always sure if a person's cancer will spread or whether they already have advanced cancer. Most of the time, your doctor will first ask about your medical history (including your symptoms) and give you a physical exam. You may also have some blood tests and imaging tests. Putting all this information together, your doctor may be able to tell if you have advanced cancer.

Signs and symptoms of advanced cancer

General signs and symptoms of advanced 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. At some point, they may need to spend most of their time in bed. It's important to note that some cancer treatments can cause this symptom, too.
- Weight loss (without trying).
- Pain, such as back pain (if the cancer has spread to the spine) or abdominal (belly) pain.
- Shortness of breath, especially when a cancer has spread to the lungs.

Advanced cancers can also cause many other symptoms, depending on the type of cancer and where it has spread. For more about symptoms, please see the sections "Managing

symptoms of advanced cancer, by location ” and “Managing general symptoms of advanced cancer.”

Physical exam

Along with asking about your symptoms, a lot can be learned by examining you. Your doctor may find signs of problems caused by advanced cancer, such as:

- Fluid in your lungs
- Fluid in your belly (abdominal cavity)
- Lumps (tumors) on or within your body
- An enlarged liver
- Weakness or numbness in your legs

Tests to find advanced cancer

Blood tests

Certain blood tests can point to advanced cancer. For example, results of liver function tests are often abnormal if the cancer has spread to the liver. High blood calcium levels can mean that the cancer has spread to bones.

Tumor markers: Some types of cancer cause substances in the blood called *tumor markers* to rise. Examples of tumor markers are PSA (prostate-specific antigen) for prostate cancer and CEA (carcinoembryonic antigen) for colon cancer. The level of these substances in the blood can sometimes be very high in advanced cancer. High levels of tumor markers can lead your doctor to suspect that your cancer has come back or spread, but further testing is needed to confirm the diagnosis.

There are many other tumor markers for other cancers. To learn what tumor markers may be used for your type of cancer, see our document about that cancer.

Imaging tests

Imaging tests create pictures of the inside of your body. Many of the tests used to find advanced cancer may have also been done when you were first diagnosed with cancer. You can learn more about these and other imaging tests your doctor may want you to have in our document called *Imaging (Radiology) Tests*.

Some of the imaging tests used might include:

- Regular (plain) x-rays
- Ultrasound

- CT (computed tomography) scan
- MRI (magnetic resonance imaging)
- PET (positron emission tomography) scan
- Bone scan

Looking for cancer cells in body tissues and/or fluids

Biopsy: Often when an imaging test finds something that isn't normal, the doctor will need to make sure that it's cancer. This can often be done by taking out a small piece of the abnormal area and looking at it under the microscope to see if there are cancer cells in it. This is called a *biopsy*. Often, a thin, hollow needle is put into the area and fluid, cells, bits of tissue, or a cylinder of tissue is pulled out. It's important that your doctor knows whether the cancer has spread, and often a biopsy is the only way to know for sure. Sometimes surgery is needed to remove a piece of tissue for testing, but this is done less often for cancer that has spread.

Bone marrow aspiration and biopsy: If your doctor suspects that cancer has spread to the bone marrow (the tissue inside some bones that makes new blood cells), he or she will need to take samples of the bone marrow for testing. Bone marrow samples are obtained from 2 tests, aspiration and biopsy that are usually done at the same time.

Most often, the samples are taken from the back of the pelvic (hip) bone while you lie on a table (either on your side or on your belly). The doctor will clean the skin over the hip and then numb the area and the surface of the bone with a local anesthetic. This may cause a brief stinging or burning sensation.

For aspiration, a thin, hollow needle is then inserted into the bone and a syringe is used to suck out a small amount of liquid bone marrow (about 1 teaspoon). Even with an anesthetic, most patients still have some brief pain when the marrow is removed.

A bone marrow biopsy is usually done just after the aspiration. A small piece of bone and marrow (about 1/16th inch in diameter and ½ inch long) is removed with a slightly larger needle that is twisted as it is pushed down into the bone. This causes a feeling of pressure, and rarely may also cause some brief pain. Once the biopsy is done, pressure will be applied to the site to help prevent bleeding.

Lumbar puncture (spinal tap): If your doctor suspects that cancer has spread to the fluid or tissues (the meninges) that surround the brain and spinal cord, they will remove some of the fluid to see if it contains cancer cells. Most often this is done with a test called a *lumbar puncture* (*spinal tap*). (The fluid around the brain and spinal cord is called *cerebrospinal* [suh-REE-bro-spy-nuhl] *fluid* or CSF.)

Most often for this test, you lie on your side with your knees pulled up to your chest. The doctor first numbs an area in your lower back near the spine. A thin, hollow needle is then placed between the bones of the spine and into the area around the spinal cord. Some fluid is then collected as it drips out through the needle. (Less often this test is done with

the patient sitting up, bent over a table.) The fluid is sent to a lab to be checked under a microscope for cancer cells. Other tests may be done on the fluid as well.

Paracentesis: If fluid has built up in the abdominal cavity (called *ascites*), it can be removed using a needle and sent to the lab to look for cancer cells. Sometimes ultrasound (an imaging test that uses sound waves) is used to place the needle in the fluid. This is most often done using local anesthetic (numbing medicine). Only a small amount of fluid (less than a tablespoon) is needed to look for cancer spread, but much larger amounts can be removed to help the patient feel better when the fluid is causing discomfort.

Thoracentesis: If fluid has built up in the space around the lung, it can be removed using a needle and then sent to the lab to look for cancer cells. Sometimes ultrasound (an imaging test that uses sound waves) is used to place the needle in the fluid. This is most often done using local anesthetic (numbing medicine). Only a small amount of fluid (less than a tablespoon) is needed to look for cancer spread, but much larger amounts can be removed to help the patient feel better when the fluid is making the patient short of breath.

How is advanced cancer treated?

This information represents the views of the doctors and nurses serving on the American Cancer Society's Cancer Information Database Editorial Board. These views are based on their interpretation of studies published in medical journals, as well as their own professional experience.

The treatment information in this document is not official policy of the Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It's intended to help you and your family make informed decisions, together with your doctor.

Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask him or her questions about your treatment options.

General treatment information

Advanced cancer cannot be cured, but it can often be treated. The physical symptoms it causes can almost always be managed. At any stage of cancer, the goal of treatment should be clear to both you and your loved ones. You should know if the goal is to cure the cancer, to slow its growth and help you live longer, or to relieve symptoms. This can sometimes be confusing because some treatments used to cure cancer are also used to slow its growth or relieve symptoms.

Some people believe that nothing more can be done if the cancer cannot be cured, so they stop all treatment. But radiation, chemotherapy (and other drugs), surgery, and other treatments can often slow cancer growth and help control symptoms. And relieving symptoms like pain, blocked bowels, upset stomach, and vomiting can help you feel better. Something can almost always be done to help maintain or improve your quality of life.

You have the right to be the decision-maker in planning your treatment. The goal of any cancer care is to give you the best possible quality of life. You want to feel as good as

possible for as long as possible. This is a very personal issue. You should tell your cancer care team what's important to you. Tell them what you want to be able to continue to do.

Some people might want to continue cancer treatments as long as there's a chance they may help. Others might decide that the side effects or other burdens of aggressive cancer treatments outweigh the possible benefits, so they may 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. Still, it often helps to include your loved ones in these difficult choices. Either way, you should make the decisions that are best and most realistic for you and your situation.

Treatment choices for advanced cancer depend on where the cancer started and how much it has spread. As a general rule, cancer that has spread will need systemic therapy such as chemotherapy or hormone therapy. Systemic therapy is treatment that is taken by mouth or injected into the blood to reach cancer cells throughout the entire body. Local therapies such as surgery or radiation therapy, which only affect a certain part of the body, might also be needed to help prevent or relieve certain symptoms.

Surgery for advanced cancer

In cancer treatment, surgery is most often used for cancer that is localized, or limited to one area. Most of the time, the intent of surgery is to cure the cancer. Sometimes, though, surgery for a localized cancer may be used to remove only the major part of the tumor, and then other treatments such as radiation and chemotherapy are used to get rid of the rest.

If the cancer has spread to only one other part of the body and it's not large, in some cases it may be possible to remove all of it. For example, if colon cancer has spread to the liver and there are only 1 or 2 tumors, surgery may be used to remove all of the tumors.

Surgery is not often used to treat advanced cancer, but it can be helpful in some cases. For example:

Surgery to relieve symptoms and improve your life

Surgery can improve your quality of life and may help you live longer, even when cancer has spread too far to be cured. For instance, cancer can sometimes block the bowel (intestine). This can be very painful and can be dangerous if the bowel is blocked completely. Surgery may be done to bypass the blockage so the bowel can work normally again. Another option is surgery to let the bowel drain outside the belly into a bag (called a *colostomy* [kuh-**lahs**-tuh-me]).

Sometimes, simple surgery is used to put in feeding tubes or to put small tubes into blood vessels for giving medicines to relieve pain.

Surgery to stop bleeding

Surgery may be done if the cancer is causing a lot of bleeding from the stomach, bowel, or airways. Often, the doctor will first look for the source of bleeding with an endoscope (a thin flexible tube that has a camera inside). The scope can be put in through the mouth or the rectum. The patient is given drugs to sleep while this is done. The doctor may be able to stop bleeding by burning the bleeding vessel closed with a tool passed through the scope (cauterizing). If this can't be done, surgery to stop the bleeding may be an option.

Another way to find out where the bleeding is coming from is to use *angiography* (**an**-jee-**AH**-gruh-fee). For this test, a long, thin tube called a catheter is put into a large artery (such as the one in the groin) and threaded up to the arteries of the intestines or lungs. A dye is injected that allows the doctor to pinpoint the blood vessel that is bleeding. Often, substances can be injected through the catheter and into the vessel to stop the bleeding.

Surgery to stop pain

Sometimes a tumor may be pressing on a nerve. Either injecting something into the nerve to kill it, cutting the nerve, or taking out the tumor may relieve the pain.

Surgery to prevent or treat broken bones

Cancer that spreads to the bones may weaken them, causing breaks (fractures) that tend to heal very poorly. If a bone looks weak on an imaging test, surgery may be done to put in a metal rod to support it and help keep it from breaking. This is most often done in the thigh bone. If the bone is already broken, surgery can quickly relieve pain and help the person be more active.

Whether surgery will help depends on your overall physical condition. Major surgery is hardly ever helpful if you cannot get out of bed. The stress of the surgery can set you back even further. On the other hand, surgery may be a good idea if you are feeling fairly well and are active.

Surgery to treat cancer that is pressing on the spinal cord

If a tumor is pressing on the spinal cord, it can lead to a loss of muscle control and function below the level of the tumor. Surgery may be needed to remove the tumor and stabilize the bones in the spine so that the patient can continue to walk and function.

You can learn more about surgery in *Understanding Cancer Surgery: A Guide for Patients and Families*.

Ablative techniques for advanced cancer

Putting a needle or probe right into a tumor and using heat, cold, or a chemical to destroy it is called *ablation*. It's used most often for cancer that has spread to the bone or liver,

but may be used in other areas, too. It's most often used when only a few tumors are causing problems.

A common type of ablation called *radiofrequency ablation* (RFA) uses a needle that carries an electric current. The tip of the needle is put into the tumor. Ultrasound or CT scans may be used to be sure the needle is in the right place. An electric current passed through the needle heats the tumor to destroy it. RFA is usually done while the patient is under general anesthesia (deeply asleep and not able to feel pain).

In another type of ablation, called *cryoablation*, a probe put into the tumor is used to freeze it, killing the cancer cells. Other methods may use alcohol to kill the cells or other ways to heat the tumor (such as *laser-induced interstitial thermotherapy*).

Ablation is discussed in more detail in our document, *Liver Cancer*.

Radiation therapy for advanced cancer

Radiation therapy uses high-energy x-rays or particles to kill cancer cells or shrink tumors. For cancer that has not spread too far, radiation can sometimes cure the cancer, either by itself or used along with other treatments.

In advanced cancer, radiation therapy is often used to shrink tumors to reduce pain or other symptoms. This is called *palliative radiation*.

There are different types of radiation therapy and sometimes they are used together.

To learn more about radiation, please see *Understanding Radiation Therapy: A Guide for Patients and Families*.

For information on radiation treatment for a specific type of cancer, see our document about that type of cancer.

External beam radiation therapy

This is like having a regular x-ray except it lasts a little longer. A machine creates strong radiation beams that are directed at the tumor(s). Patients usually have treatments 5 days a week for several weeks. Sometimes, this can be shortened to just 1 or 2 days by giving more radiation during each session.

Special types of external beam radiation therapy are able to focus the radiation more precisely to lower some side effects. These include *3D-conformal radiation therapy* (3DCRT) and *intensity modulated radiation therapy* (IMRT).

There is also a type of radiation that's given in only a few sessions called *stereotactic radiosurgery* (**steer**-e-o-**TACK**-tick **ray**-dee-o-**SUR**-jer-ee). It's called surgery, but no knife or scalpel is used. This treatment is used to treat tumors in the brain or spinal cord, and can allow the patient to avoid regular surgery. Using the same technique to treat cancer in other parts of the body is called *stereotactic body radiation therapy*.

Side effects of radiation often include extreme tiredness and skin changes ranging from redness to blistering and peeling in the skin the radiation beams passed through. Other side effects depend on the area being treated.

Radiation to the head and neck area can damage the glands that make saliva and cause a sore throat or mouth sores. Some people have trouble swallowing or lose their ability to taste food.

Radiation to the belly and pelvis can cause nausea, vomiting, diarrhea, and possible damage to the intestines. Radiation to the pelvis can irritate the bladder, leading to problems with burning with urination and a feeling like you need to go often.

Radiation to the chest area can irritate the esophagus (the tube connecting the throat to the stomach) leading to painful swallowing. It can also cause lung damage that may make some people short of breath.

Brain radiation can cause hair loss, as well problems with thinking or memory that can start many months to years after treatment.

Internal radiation therapy

This type of radiation is also called *brachytherapy* (**brake**-ee-**THER**-uh-pee). For this treatment the radioactive material is put right into or near the cancer. The radiation travels only a short distance, so there is less damage to nearby normal tissue. This is more often used for early-stage cancers, but is sometimes used to treat tumors blocking a lung or intestine.

Radiopharmaceuticals

Radiopharmaceuticals (**ray**-dee-oh-**farm**-uh-**SUIT**-ih-kulz) are a group of drugs that contain radioactive materials (such as radium-223, strontium-89 or samarium-153) that have been dissolved into liquids and can be given into a vein. They travel through the blood and are drawn to areas of bone that contain cancer. The radiation given off by the drug kills cancer cells and relieves bone pain, but it does not cure the cancer. If the cancer has spread to many bones, this may work better than using external beam radiation, which only treats a small area.

The major side effect of this treatment is lower blood cell counts (mainly white blood cells and platelets), which could increase your risk for infections or bleeding. This is more of a problem if your counts are already low before treatment.

Other radiopharmaceuticals aren’t only attracted to bones, but can be used to treat certain types of cancer, even when it has spread to other places. For example, radioactive iodine (I-131) can be used to treat most types of advanced thyroid cancer.

Drug treatment for advanced cancer

This section gives general information about the types of drugs that can be used to treat advanced cancer. For information about specific drugs used to treat your type of cancer, see our document about that type of cancer.

Several types of medicines can be used to treat advanced cancer.

Chemotherapy

Chemotherapy (chemo) uses drugs to kill cancer cells. Usually the drugs are given into a vein or taken by mouth. Once the drugs enter the bloodstream, they go throughout the body. This treatment is often useful for cancer that is widespread. By shrinking the cancer, it can relieve symptoms. It can even prolong life for some patients with advanced cancer.

Chemo kills cancer cells. But these drugs can also harm some of the normal, healthy cells. This can cause side effects, such as:

- Nausea and vomiting
- Loss of appetite
- Hair loss (the hair grows back after treatment ends)
- Mouth sores
- Diarrhea
- Increased chance of infection (from low numbers of white blood cells)
- Bleeding or bruising after small cuts or injuries (from low numbers of platelets)
- Feeling tired (from low numbers of red blood cells)
- Feeling weak

Your cancer care team can suggest many things to ease side effects. For example, there are drugs to help prevent or reduce nausea and vomiting. Sometimes it helps if the doctor changes the dose or the time of day you take your medicines. It’s always important to balance any side effects you have against the symptoms you are trying to relieve.

To learn more about chemo and dealing with side effects, please see *A Guide to Chemotherapy*.

Targeted therapy

Targeted therapy is a newer type of cancer treatment that uses drugs that attack specific parts of cancer cells or other cells or proteins that help cancer cells grow. These drugs

work differently from standard chemo drugs. They can be used alone or along with other treatments.

Most targeted drugs do not affect normal cells as much as chemo drugs do, so they may not cause as many side effects. But even though they mainly target the cancer cells, these drugs are not perfect – they can still cause side effects and sometimes serious reactions.

Targeted drugs can be part of the treatment for many different cancers, including *Breast Cancer*, *Lung Cancer*, *Colorectal Cancer*, *Kidney Cancer*, and others.

To see what targeted drugs can be used to treat your cancer, see our document about that kind of cancer. To learn more about this treatment in general, see our document *Targeted Therapy.*

Hormone therapy

Hormone therapy uses drugs to block the actions of certain hormones or reduce how much is made. This is most often used to treat breast and prostate cancer, but it can be used for some other cancers as well. For example, estrogen is a hormone that causes many breast cancers to grow. Drugs can lower estrogen levels or block the effect of estrogen on breast cancer cells, which may stop growth and even cause tumors to shrink. Likewise, male sex hormones, called *androgens*, make most prostate cancers grow. Drugs that lower androgen levels or block their effect can help stop or slow growth of these cancers.

Side effects depend on the type of hormone therapy used but can include hot flashes, blood clots, and loss of sex drive.

Immunotherapy

Immunotherapy is a treatment that boosts the body's immune system or uses man-made versions of immune system proteins to kill cancer cells. Several types of immunotherapy are used to treat patients with advanced cancer, including cytokines, monoclonal antibodies, and tumor vaccines. Immunotherapy can be a part of treatment for a number of cancers, including melanoma, non-Hodgkin lymphoma, multiple myeloma, and prostate cancer.

To see if immunotherapy is used to treat the cancer you have, see our document about that kind of cancer. General information about this kind of treatment can be found in our document called *Immunotherapy*.

Drugs to treat cancer that has spread to the bones

Some types of drugs can be especially helpful if cancer has spread to the bones. A few examples are listed here, but for more information, see our document called *Bone Metastasis.*

Bisphosphonates (bis-**FAHS**-fun-**ates)** are a group of drugs that work by slowing down the action of bone cells called *osteoclasts*. These cells normally dissolve small bits of bones to help remodel them and keep them strong. But osteoclasts are often overactive when cancer spreads to the bones, which can cause problems.

Bisphosphonates used to treat cancer in the bones, such as zoledronic acid (Zometa®) and pamidronate (Aredia®) are injected into a vein (IV), about once a month. They can often slow bone damage, lower the risk of broken bones, and reduce bone pain.

Still, these drugs can cause problems, too. The most common side effects are tiredness, fever, nausea, vomiting, and bone or joint pain. Some patients develop damage to their jawbone, known as *osteonecrosis* (**os**-tee-o-nuh-**CROW**-sis) *of the jaw* (ONJ), which can be serious. Because this is more common after a tooth extraction, many doctors have their patients get a thorough dental check-up before they start treatment to help prevent this. These drugs can cause kidney damage, so they should not be given to people with severe kidney problems.

Denosumab (Xgeva®) is another drug that can help when cancer spreads to bone. Like the bisphosphonates, this drug keeps slows down the action of osteoclasts, but it does so in a different way, by blocking a substance called *RANKL*.

This drug is injected under the skin every 4 weeks.

Common side effects include nausea, diarrhea, and feeling weak or tired. Denosumab also can cause ONJ, so doctors recommend taking the same precautions (such as having tooth and jaw problems treated before starting the drug). Unlike bisphosphonates, this drug is safe to give to patients with kidney problems.

Radiopharmaceuticals were discussed in the section on radiation.

Clinical trials

You may have had to make a lot of decisions since you were first told you have cancer. One of the most important decisions you will make is deciding which treatment is best for you. You may have heard about clinical trials being done for your type of cancer. Or maybe someone on your health care team has mentioned a clinical trial to you.

Clinical trials are carefully controlled research studies that are done with patients who volunteer for them. They are done to get a closer look at promising new treatments or procedures.

If you would like to take part in a clinical trial, you should start by asking your doctor if your clinic or hospital conducts clinical trials. You can also call our clinical trials matching service for a list of clinical trials that meet your medical needs. You can reach this service at 1-800-303-5691 or on our website at www.cancer.org/clinicaltrials. You can also get a list of current clinical trials by calling the National Cancer Institute's Cancer Information Service toll-free at 1-800-4-CANCER (1-800-422-6237) or by visiting the NCI clinical trials website at www.cancer.gov/clinicaltrials.

There are requirements you must meet to take part in any clinical trial. If you do qualify for a clinical trial, you must decide whether or not to enter (enroll in) it.

Clinical trials are one way to get state-of-the art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the only way for doctors to learn better methods to treat cancer. Still, they are not right for everyone.

You can get a lot more information on clinical trials, in our document called *Clinical Trials: What You Need to Know*. You can read it on our website or call our toll-free number to have it sent to you.

Complementary and alternative therapies for advanced cancer

When you have cancer you are likely to hear about ways to treat your cancer or relieve symptoms that your doctor hasn't mentioned. Everyone from friends and family to Internet groups and websites may offer ideas on what might help you. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

What exactly are complementary and alternative therapies?

Not everyone uses these terms the same way, and they are used to refer to many different methods, so it can be confusing. We use *complementary* to refer to treatments that are used *along with* your regular medical care. *Alternative* treatments are used *instead of* a doctor's medical treatment.

Complementary methods: Most complementary treatment methods are not offered as cures for cancer. Mainly, they are used to help you feel better. Some methods that are used along with regular treatment are meditation to reduce stress, acupuncture to help relieve pain, or peppermint tea to relieve nausea. Some complementary methods are known to help, while others have not been tested. Some have been proven not to be helpful, and a few have even been found harmful.

Alternative treatments: Alternative treatments may be offered as cancer cures. These treatments have not been proven safe and effective in clinical trials. Some of these methods may pose danger, or have life-threatening side effects. But the biggest danger in most cases is that you may lose the chance to be helped by standard medical treatment. Delays or interruptions in your medical treatments may give the cancer time to grow and make it less likely that treatment will help.

Finding out more

It's easy to see why people with cancer think about alternative methods. You want to do all you can to fight the cancer, and the idea of a treatment with few or no side effects sounds great. Sometimes medical treatments like chemotherapy can be hard to take, or

they may no longer be working. But the truth is that most of these alternative methods have not been tested and proven to work in treating cancer.

As you consider your options, here are 3 important steps you can take:

- Look for “red flags” that suggest fraud. Does the method promise to cure all or most cancers? Are you told not to have regular medical treatments? Is the treatment a “secret” that requires you to visit certain providers or travel to another country?
- Talk to your doctor or nurse about any method you are thinking about using.
- Contact us at 1-800-227-2345 to learn more about complementary and alternative methods in general and to find out more about the specific methods you are looking at. You can also check them out on the *Complementary and Alternative Medicine* page of our website.

The choice is yours

Decisions about how to treat or manage your cancer are always yours to make. If you want to use a non-standard treatment, learn all you can about it and talk to your doctor. With good information and the support of your health care team, you may be able to safely use the methods that can help you while avoiding those that could be harmful.

Managing symptoms of advanced cancer, by location

This section will cover the symptoms you might have when advanced cancer is in different places in your body. Not everyone will get all the symptoms, and some of the information here may not apply to you. Your doctor can tell you the most about where the cancer is and what symptoms it might cause.

If the cancer is in the abdomen (belly)

Fluid in the abdomen (ascites)

Some cancers can cause fluid to build up in the abdomen (called ascites [ah-**site**-eez]). This can make your belly swollen and feel uncomfortable. The fluid can also push on your lungs and make it hard to breathe.

Treatment

The doctor can remove the fluid with a long, hollow needle (called *paracentesis*). This relieves the problem for a while, but it often comes back unless the cancer is treated and gets better. If the fluid keeps coming back, sometimes a thin, flexible tube called a *catheter* can be put through the skin and left in place to let the fluid drain out without having to use a needle over and over.

Bowel obstruction

Cancer in the abdomen can sometimes block the intestines. This is called *bowel obstruction.* The blockage keeps digested food or stool from moving through. This leads to severe cramping, belly pain, and vomiting. If the blockage isn't relieved, the pressure that builds up can cause a hole to form in the intestine (a *perforation*) that lets the contents of the intestine spill into the abdominal cavity. This spreads the bacteria from the intestine into the abdominal cavity, leading to a severe infection. This leads to even worse pain with nausea and vomiting. This is very serious and can be fatal.

If your doctor suspects a bowel obstruction (or perforation), he or she will order x-rays or a CT scan of the abdomen.

Treatment

It's often very hard to solve this problem with surgery, because many patients are too sick to have an operation. Others may have cancers that are so advanced that even if they can have surgery, it may not help for long. The decision to have surgery should be weighed against the chances of returning to a comfortable life.

An operation called a *colostomy* (kuh-**lahs**-tuh-me) may help if only the colon (large intestine) is blocked. In this operation the surgeon cuts the colon above the blockage. The cut end is then connected to an opening (stoma) on skin of the abdomen (belly). Stool then comes out into a bag that's put around the opening.

If the bowel is blocked in only one area, a small, stiff tube called a *stent* may be put into the blocked area to help keep it open. This can be an option for some blockages of the colon and the small intestine, as it does not require surgery.

If surgery or stents to relieve the blockage aren't practical, treatment of the symptoms is often a good choice for many patients. This is called *supportive care*. For example, the stomach's contents can be removed through a tube placed through your nose (called a *nasogastric* or *NG tube*) which is attached to a suction device. This often relieves nausea and vomiting and may help keep pressure from building up and causing a perforation.

If an NG tube is helping, it sometimes it can be replaced by a tube that goes right into the stomach through the skin (called a *G tube*). You would also need to stop eating and would drink only tiny amounts to relieve thirst.

If needed, you can get a shot (injection) or a patch for pain and nausea. A drug called octreotide (Sandostatin®) can also stop the production of digestive juices and improve some of the symptoms that go along with a blocked bowel.

Kidney blockage

Cancer in the abdomen can also sometimes block the thin tubes that carry urine from the kidneys to the bladder. (These tubes are called the *ureters* [**your**-uh-ters].) If this happens, you may stop urinating. The urine then backs up in the kidneys, and they stop working. This often makes you feel very tired and sick to your stomach.

The doctor may suspect kidney blockage based on symptoms and order lab tests of kidney function. If these are abnormal, an ultrasound or a CT scan of the kidneys may be done to look for signs of blockage.

Treatment

In many cases, a small tube called a *stent* can be threaded up from the bladder and through the ureters to keep them open and allow urine to 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* (neh-**frahs**-tuh-me).

If cancer has spread to bones

This topic is covered in more detail in our document, *Bone Metastasis*.

Cancer spread to bone is sometimes found with x-rays or other imaging tests before the person has symptoms. It's often treated with drugs such as a bisphosphonate or denosumab to help prevent (or delay) problems.

Pain

The main symptom from cancer spread to the bones is pain. Even though the cancer may have spread to many places in the bone, it usually only hurts in a few of them.

Treatment

- Drugs that strengthen bones or slow bone destruction (bisphosphonates or denosumab)
- Radiopharmaceuticals, such as strontium-89, that are given into a vein (discussed in the section about radiation)
- Radiation therapy to especially painful bones
- Ablative techniques (discussed in the section "Ablative techniques for advanced cancer")

Broken bones

When cancer moves into bones, it can make them weak and more likely to break (fracture). Fractures can occur in any bone, but they often occur in the leg bones near the hip because these bones support most of your weight. Cancer in the bone may cause severe pain for a while before the bone actually breaks. If an x-ray is taken at that time, it may show that the bone is likely to break.

To lower the risk of broken bones:

- Stay away from activities that are hard on your bones (examples: heavy lifting, jogging).

- Ask your doctor about drugs that strengthen bones (such as bisphosphonates or denosumab).
- Any very weak bones may need a protective rod put in by a bone surgeon.

It's also important to do what you can to lower your risk of falling, which could lead to broken bones:

- Use a cane or walker as needed to keep you steady.
- If you need it, ask for help walking.
- Keep walkways clear.
- Do not change position quickly. This can cause dizziness or unsteadiness. Sit on the side of the bed for a minute or so before standing up.
- Wear rubber-soled slippers or shoes when walking or standing.
- Talk with your cancer care team about safety equipment you can use at home. Some things that you might find helpful are shower chairs and handrails.

Treatment

When possible, the best approach is to prevent the fracture. This is usually done with surgery to put a metal rod through the weak part of the bone to support it. This is done while you are under general anesthesia (in a deep sleep and unable to feel pain).

If the bone has already broken, then something else will be done to support the bone. Usually surgery is done to put a steel support over the fractured area of the bone.

Radiation treatments may be given after surgery to try to prevent any more damage. Usually about 10 treatments are needed, but some doctors give the total dose of radiation in only 1 or 2 treatments. The radiation will not make the bone stronger, but it may help stop further damage.

If bones of the spine (the vertebrae) are fractured, *vertebroplasty* (ver-**tee**-bro-plas-tee) may be used to support them. In this procedure a type of bone cement is injected into the damaged bones. The area is numbed first and an imaging scan, such as a CT scan, is used to guide the needle to the right place. Vertebroplasty often reduces pain right away and can be done in an outpatient setting.

High blood calcium levels

When cancer spreads to the bones, large amounts of calcium can be released in the blood, leading to high calcium blood levels. This is called *hypercalcemia* (**hy**-per-kal-**see**-mee-uh). High calcium levels can also occur in certain types of cancer because the cancer cells abnormally raise vitamin D levels or make a hormone that acts like parathyroid hormone.

Small increases in calcium levels may cause no problems or symptoms, but high levels can be dangerous.

Early symptoms of too much calcium include:

- Being constipated
- Urinating very often
- Feeling sluggish or sleepy
- Feeling thirsty all the time and drinking large amounts of fluid

Late signs and symptoms can include muscle weakness, muscle and joint aches, confusion, coma, and kidney failure.

Treatment

High calcium levels affect the kidneys, leading to patients urinating too much and becoming dehydrated. The dehydration worsens the high calcium levels. That is why giving large amounts of intravenous (IV) fluids is a main part of the treatment. Bisphosphonate drugs like pamidronate (Aredia) or zoledronic acid (Zometa) are also used to bring blood calcium levels down quickly. These drugs are given into the vein and may be repeated monthly. Other drugs can be used if these don't work. Treating the cancer itself can also sometimes help treat the calcium problem. If the cancer can't be treated, the calcium level may go back up and need to be treated again.

Pressure on the spinal cord (spinal cord compression)

Cancer sometimes spreads to the bones in the spine. As the tumor grows, it can put pressure on the nerves in the spinal cord so that they become damaged. This can lead to numbness and weakness in the area of the body below the tumor. If it isn't treated, it can progress to paralysis (inability to move) and complete loss of feeling. Most often this affects the legs, so that the patient can lose the ability to walk. If the tumor is pressing on the spinal cord in the neck, though, both the arms and the legs can be affected. Tumors pressing on the spinal cord can also affect the nerves to your bladder and rectum, which can lead to trouble passing urine and stool. Patients may feel constipated. Early treatment is important to help reduce permanent nerve damage and prevent paralysis.

Symptoms to watch for

- Severe back pain (this is usually the first symptom), especially if it's in the middle of your lower back
- Numbness or weakness in your legs
- Trouble urinating or losing control of urine (often with new or worsening constipation)

Tell your doctor right away if you have these symptoms. An MRI is the most helpful test for seeing if cancer is pressing on the spinal cord. CT is used for patients who can't have an MRI.

Treatment

This is a medical emergency, and it needs to be treated right away.

- Drugs called *corticosteroids* (prednisone or dexamethasone) will be given to reduce spinal cord swelling. This will help with pain and help prevent further nerve damage.
- Surgery to remove all or part of the tumor and to make the spine more stable may be needed right away in some cases.
- Radiation therapy is often given to shrink the tumor.

If cancer has spread to the brain

The most common symptoms of cancer in the brain are headache or not being able to move part of your body, like an arm or leg. Other symptoms can include sleepiness or problems hearing, seeing, and even urinating. Seizures are another possible symptom of cancer in the brain. They aren't common, but they can be very upsetting and scary for you and those around you.

MRI is generally the best test to find cancer in the brain. CT scans can also be helpful, especially if the patient has sudden symptoms which could also be caused by a stroke or if they can't get an MRI.

Treatment

Steroid drugs, such as dexamethasone, reduce the swelling around the tumors and often help with symptoms right away. If the patient had a seizure, medicine will be given to help prevent more of them. If there are only 1 or 2 areas of cancer spread in the brain, they may be removed with surgery or treated with stereotactic radiosurgery (a type of radiation therapy). Some patients, especially those with many tumors in the brain, are treated with regular external beam radiation to the whole brain.

If cancer has spread to the meninges

Some cancers can spread to the meninges (meh-**nin**-jeez) – the tissues that cover the brain and spinal cord. (This is called *leptomeningeal spread, carcinomatous meningitis, or lymphomatous meningitis*.) This can cause weakness in the arms and legs, slurred speech, trouble swallowing, vision problems, and weakness of the facial muscles.

Cancer spread to the meninges may be suspected based on symptoms, but it isn't seen well on imaging tests like MRI. To diagnose this, the doctor must do a lumbar puncture (spinal tap) to remove some of the fluid that surrounds the brain and spinal cord (called *cerebrospinal* [suh-**REE**-bro-**spy**-nuhl] *fluid* or CSF). The fluid is looked at under a microscope to see if it contains cancer cells. (Lumbar punctures were discussed in the section "How is advanced cancer found?")

Treatment

Most chemotherapy (chemo) drugs given so they enter the blood can't penetrate into the CSF, meninges, brain, or spinal cord. That's why the most common treatment for leptomeningeal spread is to inject chemotherapy directly into the cerebrospinal fluid. (This is called *intrathecal* [in-truh-**thee**-kuhl] *chemotherapy*). This can be done during a lumbar puncture or through a device called an *Ommaya reservoir*.

An Ommaya reservoir is a dome-like device attached to a catheter. The dome part sits under the skin of the scalp, with the catheter going through a hole in the skull and into one of the cavities of the brain (a ventricle). Intrathecal chemo can be given by placing a needle through the skin and into the dome. The chemo goes through the catheter and into the CSF in the ventricle. The CSF in the ventricle circulates through the other ventricles and into the area around the brain and spinal cord. With an Ommaya reservoir, the patient can get intrathecal chemo without having to get repeated lumbar punctures.

Radiation to the brain and spinal cord can also be used to treat cancer that has spread to the meninges.

If cancer has spread to the liver

Cancer in the liver can make you lose your appetite and feel tired. Some patients feel pain in the upper right part of the abdomen (belly), where the liver is. Usually the pain isn't bad and is less of a problem than the tiredness and appetite loss.

If there's a lot of cancer in the liver, it can't work well. The liver normally keeps levels of something called bilirubin low, but if it isn't working well, this substance builds up. This build up, called jaundice, causes your eyes and skin to turn yellow. The liver also removes a number of toxic substances (including ammonia) from the blood. When the liver isn't working well, these substances can build up and lead to the brain not working well, either. This is called *hepatic encephalopathy* (heh-PA-tik en-SEH-fuh-LAH-puh-thee), and can cause confusion, sleepiness, and even coma.

Cancer in the liver can also lead to fluid build-up in your belly, which is described in a section above. See "If cancer is in the abdomen (belly)".

Treatment

- If there are fewer than 5 tumors, they can sometimes be treated with surgery or ablative treatments (see "Ablative techniques for advanced cancer").
- If there are more tumors, chemo may help. 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* [**em**-buh-li-**ZAY**-shun]).

- Hepatic encephalopathy is treated with a drug called *lactulose* or certain antibiotics. Patients are also put on a low-protein diet.

If the cancer has spread to the chest or lungs

Shortness of breath

Shortness of breath can have a number of causes. It can be caused by a tumor blocking the airway so that air has trouble getting in and out of the lungs. Cancer cells in the lungs can also make it hard for oxygen to get into the blood from the lungs. Fluid build-up around the lungs (a pleural effusion [**plur**-uhl eh-**few**-zhun]) can also cause shortness of breath (discussed below). A tumor blocking blood flow to the heart (called superior vena cava syndrome) or fluid around the heart (a pericardial effusion) are also possible causes (these are also discussed below)

Low red blood cell counts (anemia) can also make someone feel short of breath. Anemia is common in cancer patients. (Anemia is discussed in more detail in the section "Managing general symptoms of advanced cancer" and in our document *Anemia in People With Cancer*.)

Chronic lung diseases, such as emphysema and other diseases not related to cancer can also make it hard to breathe.

All of these problems either prevent the lungs from breathing in enough air, or keep them from getting enough oxygen to the cells of the body.

Treatment

Getting extra oxygen can often be very helpful. It's breathed in through a little tube that goes under your nose or through a mask that goes over your mouth and nose.

When possible, treating the cause will help relieve shortness of breath. Treating the cancer with chemotherapy or targeted therapy may help. If there is a single tumor blocking off an airway, treatment with radiation (external beam radiation, stereotactic body radiation therapy, or brachytherapy) may help. Another option is using a flexible tube that is passed down your throat and into the lungs (a bronchoscope) to deliver laser treatment to shrink the tumor.

Treatment of pleural effusions, pericardial effusions, and superior vena cava syndrome is discussed further down.

Sometimes fluid builds up in the lungs (called *pulmonary edema* [**pull-**muh-nair-ee uh-**deem**-uh). This is more common in people with heart problems. The fluid build-up can be treated with diuretics (water pills) and heart medicines.

Anemia can be treated with blood transfusions to help you feel less short of breath.

Morphine-like drugs (opioids) can be used to help relieve the feeling of shortness of breath. Anti-anxiety medicines, like diazepam (Valium®), can also help to reduce cough

and ease the distress caused by shortness of breath. Sometimes medicines that help dry up mucus can help, too.

Having trouble breathing can make you feel anxious, worried, and even like you are in a panic. Some patients find these complementary methods helpful to ease the anxiety that can come with breathing problems:

- Relaxation methods
- Biofeedback
- Guided imagery
- Therapeutic touch
- Aromatherapy
- Music and art therapy
- Distraction (watching television, reading, etc.)
- A fan blowing air on you

Talk to your cancer care team or call us if you would like to learn more about any of these.

Fluid around the lungs (pleural effusion)

Cancer in the chest or lungs may cause fluid to build up in the chest around the lungs. This is called a *pleural effusion* (**plur**-uhl eh-**few**-zhun). The fluid can keep the lungs from filling up with air and make you short of breath.

Treatment

- Placing a hollow needle through the skin to remove the fluid that has built up around the lungs (this is called *thoracentesis* [THOR-uh-sen-TEE-sis] and was discussed in more detail in the section about diagnosis).
- If the fluid builds up again, a small, flexible tube (a catheter) can be put through the skin and left in place to let the fluid drain into a bag.
- To remove the fluid and keep it from coming back, doctors sometimes perform a procedure called *pleurodesis* (**plur**-o-**DEE**-sis). A small cut is made in the skin of the chest wall, and a hollow tube is placed into the chest to remove the fluid. Then there are a couple of ways to keep the fluid from coming back. One way is to blow talc into the chest cavity (through a small cut in the chest wall) during an operation. Another way is to use the tube to put either talc (mixed with water), the antibiotic drug doxycycline, or a chemotherapy drug into the chest cavity. This causes the outside lining of the lung and the lining of the chest wall to stick together, sealing the space and limiting further fluid buildup. The tube is often left in for a couple of days to drain any new fluid that might collect.

- Treating the cancer with drugs, such as chemotherapy, hormone therapy, targeted therapy, or radiation therapy will lower the amount of fluid being made so that it doesn't build up

Fluid around the heart (pericardial effusion)

The heart is coated by tissue that makes a sac (called the *pericardium* [pair-uh-**car**-dee-um]) that contains the heart in the chest. Although it isn't common, cancer can spread to the tissue and cause fluid build-up around the heart (called a *pericardial effusion* [pair-uh-**car**-dee-uhl eh-**few**-zhun]). The fluid can press on the heart, so that it can't pump blood well. Symptoms can include shortness of breath, low blood pressure, body swelling, and feeling tired.

Treatment

- Removing the fluid with a long, hollow needle. This procedure, called a *pericardiocentesis*, is usually done in the hospital because the heartbeat needs to be monitored.

- To keep the fluid from building up again, a piece of the pericardium may be removed to allow the fluid to drain into the chest or belly. This is called a *pericardial window*. .

Superior vena cava syndrome

The main vein that returns blood to the heart from the upper body is called the *superior vena cava*. It runs through the upper middle chest. Tumors in the chest or lung can sometimes grow large and press on this vein, blocking the blood flow to the heart. This will cause blood to back up in the lungs, face, and arms.

Symptoms can include:

- Shortness of breath

- A feeling of fullness or pressure in the head

- Swelling in the face, neck, and arms

- Coughing

- Chest pain

- Facial redness

- Swollen neck veins

If not treated, this can affect blood flow to the brain, which can cause confusion, changes in consciousness, or even coma.

Treatment

Superior vena cava syndrome needs to be treated right away. Radiation therapy and/or chemo are often used to shrink the tumor. If this is not possible, you may have a small metal tube called a *stent* put in the vein to keep it open. This tube is put in through a large vein in your arm or neck and then threaded through the blockage.

If the cancer has spread to the skin

Advanced cancer that has spread to the skin can cause lumps or even sores on the skin. These can be painful and may smell bad if they get infected.

Treatment

- Radiation treatment to lumps or sores on the skin can shrink them and dry them out.
- Certain chemo drugs can be put right on the tumors and may help dry them up.
- Antibiotics can help with infections. The antibiotics may either be pills or a cream or powder that is put right on the sores.

Managing general symptoms of advanced cancer

The previous section talked about dealing with problems that are caused by cancer spread to certain areas. This section describes some of the other major problems that can be seen in people with advanced cancer. Often these are not caused directly by the cancer or can have more than one cause. You may have some of these problems and symptoms or none of them. (This list is in alphabetical order.)

Anemia

This topic is covered in more detail in the document *Anemia in People With Cancer*.

Anemia (low red blood cell counts) is common among patients with cancer. It can be caused by the cancer itself, cancer treatments, or deficiencies in iron or certain vitamins.

Cancers, especially when they are advanced, make something that turns off red blood cell production in the body. Some cancers (like lymphoma and multiple myeloma) also sometimes cause the body to destroy red blood cells (called *hemolytic anemia*). Cancers in the stomach and intestine can bleed, leading to anemia. Cancer can also cause anemia if it spreads to the bone marrow (this is different from spread to bones). Bone marrow is found inside certain hollow bones and contains the cells that make new blood cells. When cancer cells spread to the bone marrow, they can crowd out the cells that make new blood cells, leading to lower blood cell counts. This is most common in lymphoma, but other types of cancer can spread to the bone marrow, too.

Diagnosis

Symptoms of anemia include:

- Feeling tired and weak
- Shortness of breath with little activity
- Being pale
- Rapid heart beat

Anemia is diagnosed with a simple blood test (the complete blood count or CBC). Other blood tests can be used to see if the body is destroying the red blood cells or if the patient has low levels of iron or certain vitamins. Results of blood tests can lead the doctor to suspect that the cancer has spread to the bone marrow, but in order to know for certain, samples of bone marrow need to be removed for testing. This is called a bone marrow aspiration and biopsy, and was discussed in the section about diagnosing advanced cancer.

Treatment

- If the anemia is causing symptoms, often the first treatment is to give blood (a transfusion). This might not be as helpful if the body is destroying the red blood cells. (More information about transfusions can be found in our document *Blood Transfusion and Donation*.)
- If the patient has low levels of iron or certain vitamins, the patient will be given supplements. If anemia is caused by cancer spread to the bone marrow, treating it (with chemotherapy, for example) can help. There are also drugs that tell the body to make more red blood cells.

Confusion

People with cancer that is getting worse often become restless, anxious, depressed, irritable, or angry. The person may look sleepy and not respond to questions one minute, but be wide awake and alert the next. Or they may be loud and agitated but unable to say why. They may see and hear things that are not really there, lose track of their surroundings, or say things that don’t make sense to others. These symptoms should be reported to the doctor, since confusion can often be treated.

Many different things can cause confusion:

- Liver disease
- Bowel blockage (obstruction)
- Bladder blockage

- Medicines
- Medicine withdrawal
- Low blood sugar
- Cancer that has spread to the brain
- Infection
- Pain
- Blood chemistry changes, such as too much calcium

Many of these were discussed in the previous section.

Treatment

The best approach to treatment is to find the cause and treat it, when possible. This means a physical exam, often with lab tests to look for signs of infection and blood chemistry problems. Imaging tests may also be needed. Any medicines being taken, especially pain medicines, may be looked at closely and adjusted to see if the confusion changes. If the patient is agitated, sometimes medicines can be given to calm them down.

Constipation

When you are constipated, your stool gets hard, dry, and you have trouble having bowel movements. It can be caused by many of the changes that go along with advanced cancer, such as:

- Medicines (especially opioid pain medicines, like morphine and oxycodone)
- Diet changes, including eating and drinking less
- Decreased activity
- Changes in blood chemistry, such as too much calcium or too little potassium

Constipation can lead to abdominal (belly) pain and nausea. If severe constipation goes untreated, patients can develop a blockage in their bowel (obstruction). In extreme cases, surgery may be needed to unblock the bowel.

Treatment

Prevention is the best way to deal with constipation when possible. Ways to help prevent or relieve constipation include:

- Talking to your health care team about the problem before it becomes severe
- Taking laxatives before the problem starts or gets bad

- Drinking plenty of fluids
- Getting plenty of fiber
- Getting mild exercise, like short walks or even chair exercises

If possible, the cause of the constipation should be found and treated. A physical exam, blood tests, or even imaging tests may be done, depending on what your doctor suspects may be causing it.

Opioid pain medicines (like morphine, oxycodone, and fentanyl) commonly cause constipation. This side effect does not get better over time, and will get worse as the dose of the medicine is increased. Anyone taking an opioid regularly should also be taking something to prevent and treat constipation.

A number of drugs and laxatives are used to help treat constipation. Talk to your cancer care team about what might work best for you. If drug treatments don't work, your cancer care team may need to look for other more serious possible causes of constipation, such as pressure on the spinal cord or bowel blockage (obstruction).

Depression

You can get more information about this in our document called *Anxiety, Fear, and Depression*.

Feeling sad and down at times is normal with cancer and the side effects of treatment. But you don't have to feel down all the time. Depression can be a very serious problem, but it can be treated. Talk to your doctor if you feel down or depressed. A trained mental health professional may be able to help you feel better – no matter what's making you feel depressed.

About 1 in 4 people with cancer will become clinically depressed. And these numbers are higher in those with advanced cancer. Clinical depression is more than being sad. It can cause great distress and require medical care. Patients, family, and friends should watch for the following symptoms of depression.

- Ongoing sad or "empty" mood
- Feeling hopeless and helpless
- No interest or pleasure in everyday things
- Less energy, feeling tired, being "slowed down"
- Trouble sleeping, early waking, or oversleeping
- Loss of appetite or overeating
- Trouble focusing, remembering, or making decisions
- Feeling guilty or worthless

- Feeling grouchy
- Crying a lot
- Thoughts of suicide; trying to kill yourself

Please talk to your doctor or see a mental health professional if you have 5 or more of these symptoms for 2 weeks or longer. Family members and friends should also encourage a patient with these symptoms to get help.

Treatment

Several types of treatment may be helpful, including:

- Medicine
- Counseling
- Social activities
- Learning new problem-solving skills

People treated for depression are often surprised at how much better they feel. Depression and feelings of sadness can become a way of life, but it doesn't have to be that way.

Fatigue (tiredness)

For more details than shared here, please see our document *Fatigue in People With Cancer*.

Fatigue is one of the most common symptoms among cancer patients. It's a physical, mental, and emotional tiredness that doesn't get better with rest. It can make it hard for you to find the energy to do the things you normally can or want to do. Fatigue can be caused by:

- Cancer itself
- Cancer treatment
- Not eating well or getting enough fluids
- Pain
- Feeling stressed or depressed
- Sleep problems
- Not having enough red blood cells (anemia)

Treatment

There's no single cure for fatigue. In each case, treatment is aimed at the cause of the fatigue.

Light or medium exercise with a lot of rest breaks in between can often help with fatigue. You can also save energy by doing what needs to be done first and letting other things wait. Try to think of energy as money. You want to invest only in what's most important to you. It may also help to spread out your activities through the day rather than trying to get things done all at once.

Sometimes stimulant drugs can help overcome the feelings of fatigue. Ask your doctor if this is something you could try.

Pain, depression, and sleeping problems can and should be treated. Talk with your doctor if you have any of these problems.

Treatment of anemia was discussed earlier in this section

High calcium levels

High calcium levels (hypercalcemia) are most often caused by cancer that has spread to bones, and so are discussed under the heading "If cancer has spread to bones" in the previous section.

Nausea and vomiting

You can get more information on nausea and vomiting in our document called *Nausea and Vomiting.*

Advanced cancer can cause nausea and vomiting, either from treatment or from the cancer itself. Nausea and vomiting are most often caused by cancer treatment and get better over time after treatment is finished. Some pain medicines can cause nausea. This usually gets better as your body gets used to the drug, but medicines to treat nausea can also help. Constipation can also lead to problems with nausea, so preventing and treating constipation is very important. Nausea and vomiting can be problems for many cancer patients, but they can be treated.

Too much vomiting can be dangerous. It can make you lose too much water (dehydration) and body salts, or cause you to breathe in food or liquids (aspiration).

Treatment to help prevent or relieve nausea

- Try bland foods, such as dry toast and crackers.
- Drink plenty of liquids. Try ice pops, gelatin, broth, or cold clear liquids.
- Eat several small meals and snacks if you get sick only between meals.

- Eat things that smell pleasant to you, like lemon drops or mints.
- Eat food cold or at room temperature to make the smell and taste weaker.
- Ask your doctor about medicines to help with nausea and use them as directed. Do not wait until the nausea is bad before taking a drug to fight it.
- Try to rest quietly with your head elevated for at least an hour after each meal.
- Learn meditation and relaxation techniques.
- Distract yourself with soft music, a favorite TV program, or company.

Treatment for vomiting

- If you are in bed, lie on your side in case you vomit. You don't want to breathe it in or swallow it.
- Ask your doctor about medicines to help with vomiting and use them as directed.
- Sometimes taking a medicine by mouth (orally) can bring on nausea or vomiting. Your doctor may be able to prescribe your medicines in a different form instead. Some medicines are available as tablets that dissolve under the tongue, suppositories (drugs that you take through your rectum), skin patches, or gels that are put on the skin.
- Learn meditation, self-hypnosis, and relaxation techniques.
- Eat ice chips or frozen juice chips that you can munch on slowly.

Things to avoid

- Don't force yourself to eat or drink when you have an upset stomach or are vomiting.
- Don't lie flat on your back.
- Stay away from foods that have strong smells.
- Don't eat foods that are sweet, fatty, salty, or spicy.

Stop eating for 4 to 8 hours if you are vomiting a lot. Then, try small amounts of clear liquids.

Call the doctor if you

- Breathe in or swallow vomit
- Throw up more than 3 times an hour for 3 hours or longer
- See blood or something that looks like coffee grounds in your vomit

- Can’t keep down more than 4 cups of liquid or ice chips in a day
- Can’t eat for more than 2 days
- Can’t take your medicines
- Feel weak or dizzy

Many people think that nausea and vomiting are a part of cancer treatment that they can’t avoid. This is not true. A number of drugs work very well to prevent and treat nausea and vomiting. Work with your doctor to find the right drugs for you.

Pain

We have more detailed information on how to manage pain in our document called *Guide to Controlling Cancer Pain.*

Many patients with advanced cancer have pain. For these people, controlling pain is an important goal of treatment. There are many ways to ease pain caused by cancer. Sometimes pain is relieved by treatments that kill cancer cells (like chemo or radiation therapy) or slow their growth (like hormone therapy or bisphosphonates).

Don’t be afraid to use medicines or other treatments, including complementary therapies, to help with your pain. Getting effective pain relief will help you feel better. It will make it easier for you to focus on the things that make you happy and are important in your life. Some studies show that cancer patients who get effective pain treatment may live longer than those who do not. The first and most important step is letting your cancer care team know about your pain. Do not accept it as normal.

Treatment with pain medicines

Medicine taken by mouth is the most common way to treat cancer pain. If you become unable to take medicines by mouth, there are many other ways you can get them, such as through the skin in a patch, in shots, or in a vein. Other ways to help with pain include massage, heat and cold, and changing your body position.

Your doctor may start you with milder pain relievers like acetaminophen (Tylenol®) or nonsteroidal anti-inflammatory drugs such as ibuprofen (Motrin®). These drugs can be very helpful in treating some kinds of pain. If these aren’t helping, you will likely be given an opioid such as codeine, hydrocodone, morphine, or oxycodone. Codeine and hydrocodone are considered “mild” opioids, while morphine and oxycodone are stronger. Opioids are often the best drugs to control cancer pain. Unless you have a history of drug or alcohol abuse, it’s very unlikely you will become addicted to opioids if you use them as directed for pain. Talk to your doctor or nurse about any concerns you might have about using pain medicines.

If you have pain that does not go away, 2 or more drugs are often used together. Your doctor may prescribe a long-acting pain reliever for you to take regularly, along with another shorter-acting medicine to take if you have “breakthrough” pain. It’s very

important that you take the pain medicine regularly. This allows you to keep a steady level of it in your body without extreme highs and lows. It helps keep your pain under control while lowering many of the side effects (like nausea and feeling sleepy). If you wait until the pain is bad to take the medicine, you'll have to take much more just to get the pain under control.

Opioids can make you sleepy. Most of the sleepiness goes away after a few days. But it may not go away if you are taking high doses. You may have to choose between having less pain and being drowsy or having more pain and being more alert.

These drugs can also cause nausea and constipation. Constipation will not go away or get better on its own over time. If you are on opioids, you will need to take laxatives regularly, usually every day. Constipation can also be helped by using stool softeners regularly, eating a high-fiber diet, drinking plenty of liquids, and being as active as possible.

The best treatment for you depends on the type of pain you are having and how bad it is. Be sure to tell your cancer care team if the methods that you are using are not working. You may need to add a new medicine, try a different medicine, try a different schedule, or adjust the dose.

Some people need much higher doses of opioids than others. Don't be concerned about needing to take large amounts of drugs. It has nothing to do with your being intolerant of pain or a "complainer." It just means that your body needs more medicine than average. Often the dose of opioid needed goes up over time. This does not mean that you have become addicted. Sometimes the dose goes up because the cancer is growing and causing more pain. Another reason you may need a higher dose is that your body has become tolerant of the drug. This is only really a problem if the dose you need causes serious side effects. If this happens, it often helps to switch to a different opioid drug.

Other ways doctors can treat pain

Intrathecal pain pump

For patients whose pain isn't well controlled with pain medicines given by mouth or a patch, other methods may be used. One choice is to give the pain medicine into the spinal canal. A catheter (a thin tube) is put into the space around the spinal cord and hooking it up to a pump that gives a continuous flow of pain medicine. When pain medicines are given this way, much smaller doses are needed than if the drugs are given by mouth or even by vein. This often means better pain control with fewer side effects. The downside is that you have to have a catheter placed which is then left in for some time and could get infected.

Nerve blocks

If cancer is causing pain by growing into a nerve, it may help to deaden the nerve for a time by injecting a numbing medicine (local anesthetic). If that helps, the doctor can inject something to kill the nerve.

Other ways of coping with cancer pain

There are other things you can do that may help you cope with cancer pain and feel more in control of your situation.

Get information: Knowing why you have a problem and what you can do about it can relieve stress. Don't be afraid to ask why something is happening.

Take action: Doing something, sometimes anything, about a problem can help you feel more in control. For example, if the new drug you are taking for your pain isn't helping, ask to try something else.

Distract yourself: Getting your mind off the pain is always a good idea. When you are focused on your pain it usually hurts more. If you are watching an interesting movie while in pain and waiting for the pain medicine to work, you might even forget about it for a while. Visits from friends and family can serve the same purpose.

Take it one step at a time: It's easy to get overwhelmed if you focus on all the discomforts at once. Tackling one problem at a time makes it seem more possible that all the problems can be helped.

Talk with others: Sometimes, it's a relief just to talk about how discouraged and frustrated you feel about your symptoms. Many people are good listeners and can listen without passing judgment or giving advice.

Express yourself in other ways: Talking isn't easy for some. Writing in a journal, painting, or meditating may be other ways for you to express your feelings. For many people, humor is a good coping skill for rough times. Even when life seems bleak, there's usually something that can lighten the mood and relieve stress.

Practice meditation: By focusing your mind on pleasant scenes you can direct your attention away from unpleasant feelings and thoughts. These mini-vacations may allow you to get a needed rest, both physically and emotionally.

Skin problems

People with long-term illnesses often get skin problems from sitting or lying too long in one position. These can become serious if they lead to infections. Cancer patients may also get skin problems from:

- Not eating well
- Not being able to move around
- Swelling
- Some cancer treatments

Treatment

Talk with your cancer care team. They can recommend a skin care plan to meet your needs. The most important things you can do are: change positions often when you are sitting or lying down and keep your skin clean and dry.

Weight loss and not eating well

As cancer gets worse, many people feel weak, don't feel like eating, and lose a lot of weight. This is often caused by the cancer itself and is not within the patient's control. The patient understands the importance of eating and may want to eat to help themselves, but they cannot force themselves to eat. Even if they do eat, they may keep losing weight.

The reason for this is not known, but it may be caused by:

- Substances released by the cancer into the blood that lower appetite and cause the body to burn more calories
- No longer being able to absorb nutrients from food

Treatment

It's very hard to treat this problem. Getting nutrients through a feeding tube can be uncomfortable and isn't always helpful. Feeding through an IV (intravenous) line into a vein is also often not helpful. And it can burden patients with needles, tubes, and other supplies.

Sometimes, the best approach is to eat smaller amounts more often. Eat whatever appeals to you. Avoid low-calorie or low fat foods; this is the time for high-calorie foods and vitamins.

One drug that has been helpful is megestrol (Megace®). In high doses, it can bring back appetite in some patients. Drugs that help the stomach empty, such as metoclopramide (Reglan®), can also help improve your ability to eat. Sometimes, corticosteroid drugs like prednisone are helpful, too.

Nausea, constipation, and depression can also lead to poor appetite. Treating these problems can often help.

What should you ask your doctor about advanced cancer?

It's important to talk openly and honestly with your doctor about how you feel and how you're doing. Your doctor and the rest of your cancer care team want to answer all of your questions. It may help to have a family member and or a friend with you during these talks. Take notes or ask if you can record the conversation.

Here are some questions you may want to ask:

- What are my treatment choices?
- Which treatment do you recommend, and why?
- Why are we doing this treatment – to cure the cancer, to help me live longer, or to relieve or prevent symptoms of the cancer?
- What are the chances that the treatment will help?
- What side effects are likely to result from the treatment(s) that you recommend? What can I do to help reduce these side effects?
- How will treatment affect my daily activities?
- Would a second opinion be helpful to me? Where can I get a second opinion before I start treatment?

Coping with advanced cancer

Advanced cancer can be very scary and may very well be the hardest thing you and your loved ones have ever faced. If you have ongoing concerns that interfere with your lives, 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 comforting to talk with an expert about your situation. Social workers, psychologists, and psychiatrists are all licensed mental health professionals. You can find one by asking your cancer doctor or through the nearest large hospital in your area. Even one session with a licensed mental health professional can often help you and your family focus on what matters most. Your cancer care team will work with you to find the right professional for you.

Dealing with worry and the unknown

Learning that you have advanced cancer may make you feel lost and afraid. This is normal. You may have questions such as:

- What’s going to happen to me?
- Have I done everything I should have done?
- What are my treatment options?
- Am I going to die soon?
- How much control will I have over my life? Over my death?
- Will my wishes be followed?
- How much pain and suffering might I have?

- What if I feel that I can’t take more treatment?
- Am I a burden to my family?
- Will this be too much for my family to bear?
- What am I going to do about money?
- How long am I going to have to go through this?
- What happens when I die?

The list of concerns and fears may be overwhelming to think about. Worrying may make it hard for you to focus. Restlessness, shortness of breath, trembling, heart racing, sweating, dry mouth, and grouchiness are other signs of worry. But few people have all of these symptoms.

There are professionals who can help you manage these concerns. Along with your doctor and nurse, there are social workers, psychologists, psychiatrists, and pastoral counselors who are specially trained to help you talk about your concerns, control your fears, and find meaning in what you are going through. They can also support your family. Your doctor will know the local mental health experts in your area.

Managing worry

- Sometimes just talking about feelings helps to relieve worry. Choosing the right person to talk with can be important. For some, that person will be a minister or a good friend. For others, it will be a family member.
- Trying to relax with deep breathing and other techniques can help. It works best if you practice and do it regularly.
- It’s important to let yourself feel sad and frustrated, without feeling guilty about it.
- Spiritual support is helpful for many people.
- If your worry is upsetting to you or your family and lasts for long periods of time, it’s important that you ask to see a mental health professional who is specially trained to work with cancer patients.

Along with these measures, a doctor may be able to suggest medicines to help treat anxiety or depression. Short-term use of these drugs is often helpful and is rarely a problem. It could be just what you need to regroup and go forward.

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 may have changed since you learned about the cancer. Your hope may 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. 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.

Feeling less alone

Depression and feeling alone often go hand in hand. Depression can make you feel the need to withdraw from others. The illness and the demands of treatment can also sometimes cause you to be alone. People with cancer can sometimes be alone even if they want to be with others. This can happen because of physical problems, lack of transportation, or treatment schedules.

You may even feel alone when you're with well-meaning friends and family. You may have a hard time sharing your feelings about cancer. Others might be uncomfortable hearing about your illness. This isolation in the company of others can sometimes feel worse than if nobody were there.

Sometimes a person with cancer may feel like they need to ask others if it's OK to talk more freely. And it's OK to let others know what you're comfortable talking about. It can often be helpful if a friend or family member arranges for others to visit you. Trying to do things outside the home can also make you feel less alone.

Managing feelings of guilt

Both people with cancer and those in their support circle often have feelings of guilt. If you have cancer, you might feel guilty about being ill. These feelings can last even though you know it isn't your fault. Making others aware of your discomfort or telling loved ones that you need their help can make you feel guilty, too.

For the people caring for the patient, guilty feelings can be a daily struggle. Those who are healthy might feel guilty about their good health. They often feel bad about not doing enough for their loved one. Sometimes they even feel bad about the resentment that they feel for what they are doing.

There are some things you can do that may help with feelings of guilt:

- Sometimes just talking about these feelings can help. It can clear the air and help ease everyone's conscience. Sharing this common feeling can bring you closer together.

- Letting each other off the hook is helpful. You can tell each other that you know everyone is doing their best.
- For caregivers, sharing the work is important. Friends and family who want to help should be given specific tasks to lighten the main caregiver's load.
- If the guilty feelings don't go away, you might need help working through them. Talk to your doctor about meeting with a trained mental health professional who can help you better understand and manage your feelings.

Facing family issues

Advanced cancer changes the way family members relate to one another. Families that are able to solve conflicts well and family members who support each other 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 anticipate problems.

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 example, a woman who is too sick to get out of bed may feel the loss of her role as a wife and 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 responsibilities can cause resentment and anxiety. Family counseling may help family members learn to deal with the changes that are taking place. It can also help members discuss their feelings more comfortably. Counseling is especially helpful in families where some members do not feel comfortable openly talking about their feelings.

The needs of family members and caregivers are important, too. Information written for caregivers can be found on our website, or call us for free copies of *What You Need to Know as a Cancer Caregiver* and/or *What It Takes to Be a Cancer Caregiver*.

Maintaining sexual feelings and closeness

During advanced illness, sexual relationships will change. This can be because of physical symptoms such as tiredness, trouble moving, or pain. It can also come from holding back emotions. In most cases sexual desire may decrease, but this does not mean that the need for physical closeness and touching will change. In fact, the need to be held and touched may increase. Talking about feelings and continuing to touch and be close to each other can help with feelings of isolation. Still, if you have any doubt about whether it's OK to act in a sexual manner or to simply touch, just ask and talk about it. Don't assume one way or the other.

For more information, please see our separate booklets, *Sexuality for the Man With Cancer* and *Sexuality for the Woman With Cancer*.

Getting through a long illness

Illness that goes on for months or even years can put huge stress on the family. The longer the stress lasts, the more at risk the family is for mental distress. Family members may become exhausted in body and mind. Fatigue added to worry and fear can take a toll. Find ways to get support for the caregivers. Keep asking how everyone is holding up.

You can get more information on taking care of the caregiver in our documents, *What It Takes to Be a Caregiver* and *What You Need to Know as a Cancer Caregiver*. We also have checklists that caregivers can use to decide if they need help coping.

Facing death

Anyone with advanced cancer faces the reality that he or she may die soon. Family members must recognize this, too. Even if the person with advanced cancer is doing well at the moment, death is a likely part of the near future. Thinking about death is frightening and painful for many people. Patients and families often worry about suffering before death and being alone in death.

Many people with cancer want to be at home until the end. Dealing with a long illness and dying at home can be easier with the support of family and medical staff.

The main goal for a death that cannot be avoided is that it be a “good death.” A good death is one with the least possible amount of pain, discomfort, or suffering for the patient, and the least possible suffering for the family and caregivers. A good death is one that’s in line with the patient’s and loved ones’ wishes, including their culture, values, and ethics. Loved ones are also supported and are with the patient as much as they and the patient want, especially as death nears. Ideally, this allows goodbyes to be said and problems resolved before death. It also allows loved ones to be with the patient at the end.

Our document, *Nearing the End of Life*, has been written to address questions that patients and loved ones ask about what to expect during the last 6 months of life. You can get a copy by calling our toll-free number or visiting our website.

Sources of support

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. These people provide what is called “social support.” Patients who have social support are often better able to adjust to their situation.

Support can come from family and friends, members of a church, 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 health care team or member of the clergy for resources in your community.

What else can friends do to help?

One of the first things a friend or family member will often say is, "What can I do to help?" You may be tempted to say, "Oh, nothing right now. We're just fine." You may turn down help because you want your privacy. Or you don't want to feel like a burden. Or maybe you feel like you have all you can handle without having people around you right now.

Remember that people really do want to help, and you will likely need some extra help during this time. Your friends and family want to do things for you and support you. It allows them to feel less helpless and helps them feel as if they are a part of your life. Let them help you. Be as specific as possible about the kind of help you need. For example, ask them if they can give you a ride to the doctor on a certain day, or find out if they can help you with housecleaning, meals, yard work, or child care. There will probably be times when you won't know what you need, but sometimes even just saying that will help them better understand what you're going through.

Religious or spiritual support

Religion can be a source of strength for many people. Some find new faith during a cancer experience. Others find cancer strengthens their existing faith or their faith provides newfound strength. On the other hand, those who have never had strong religious beliefs may not feel an urge to turn to religion.

Spiritual questions are common as a person tries to make sense of both the illness and his or her life. This may be true not only for the person with cancer, but for loved ones, too.

Here are some suggestions for people who may find comfort in spiritual support:

- A spiritual counselor can often help you find comforting answers to hard questions.
- Religious practices, such as forgiveness or confession, may be reassuring and bring you a sense of peace.
- A search for the meaning of suffering can lead to spiritual answers that can be comforting.
- Strength through spiritual support and a community of people who are there to help can be priceless to the patient and family members.

For those who are interested, a minister, priest, rabbi, other clergy member, or a trained pastoral counselor can help you identify your spiritual needs and find spiritual support. Some members of the clergy are specially trained to minister to people with cancer and their families. Some hospitals have chaplains available to visit patients.

Ask your health care team about the resources available at your hospital. You can also contact your American Cancer Society to find out about sources of support in your community.

Support programs

Support programs exist in all kinds of formats 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.

Some groups are formal and focus on learning about cancer or dealing with feelings. Others are informal and social. Some groups involve 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 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.

Regardless of the group’s structure, you should feel comfortable in the group and with the facilitator. If you have any fears or uncertainties before entering a group, feel free to discuss them with the group’s facilitator.

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.

Caregiver support

People helping to care for someone with cancer need to take care of themselves, too. Taking care of oneself means taking time to do things you enjoy. It also means getting help from others.

Having the support of friends and family is critical to both the person with cancer and the caregiver. Caregivers often tend to feel isolated, depressed, anxious, and are less likely to reach out for help. Physical problems such as heart disease, high blood pressure, sleep problems, and fatigue have been linked to caregiving. Caregivers may not think much about it, but they can't help their loved one if they don't also take care of themselves.

Overwhelming concern for a sick loved one may be distracting. The caregiver may find there's conflict between the needs of the patient, their own needs, and the needs of the family. Many caregivers forget to eat, don't get enough sleep or exercise, and ignore their own physical health concerns. It's important for them to keep their doctor appointments, get enough sleep, exercise, eat healthy foods, and keep a normal routine as much as possible. It's also important that they not feel guilty or selfish when asking for help or taking time for themselves. By taking care of themselves, they are better able to take care of the person with cancer. This means taking time to do things they enjoy.

For more information on this, see *What It Takes to Be a Caregiver*, *What You Need to Know as a Cancer Caregiver*, and *Caring for the Patient With Cancer at Home: A Guide for Patients and Families*.

Choices for palliative care

Care aimed at relieving suffering and improving the quality of life is called *palliative care*. The focus of care is on the patient and family rather than the disease. Palliative care treats pain, nausea, and other symptoms caused by the disease. Some health professionals call this *supportive care*.

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

- Pain
- Breathing problems
- Appetite loss
- Weight loss
- Tiredness (fatigue)
- Depression and anxiety
- Confusion
- Nausea and vomiting
- Constipation
- Bowel blockage (obstruction)

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 state of the disease.

Palliative care can be given at home. Some cancer centers actually have special palliative care teams that can help. The team usually has professionals with extra training in cancer

and hospice care. Members may include a doctor, chaplain, social worker, nurses, home health aides, physical therapists, a dietitian, pharmacist, and breathing (respiratory) therapists. The palliative care team works with the patient's doctor to:

- Develop treatment plans
- Manage symptoms
- Give emotional support
- Help deal with end-of-life issues

When the Focus Is on Care: Palliative Care and Cancer is a book by the American Cancer Society that discusses many of the questions you may have and provides a list of very helpful resources. Call us or visit our bookstore for more information.

Home care

Home health care is professional health care given in your home. Home care may be right for you if you still need care but do not need to be in a hospital. A wide range of health and social services can be given at home to people with advanced cancer.

Many home health care agencies offer care and support for patients who choose to stay at home. Home care usually includes regular visits by health care professionals. But the family is responsible for most of the care. It's important to talk with your cancer care team so that you understand what types of care will be needed and how this will affect your family. It's also important to check with your health insurance company to find out if they will pay for home care.

Sometimes, the family can't go on caring for the patient at home. There may not be enough family members to provide all the care needed or the care may be too complex to be given at home. If this happens, family members may feel guilty, especially if they had promised to keep the patient at home. Recognizing the efforts of family members can help them cope with these feelings. For more information, please see our document, *Home Care Agencies.*

Hospice care

Hospice is a program designed to give palliative or supportive care near the end of life. The right time for hospice care is when treatment aimed at a cure is no longer helping and the patient is thought to have about 6 months or less to live (but hospice patients can live longer). Together, the patient, family, and doctor decide when hospice care should begin. A hospice program can do a lot for you and your loved ones, and most provide care for the patient in their home.

Hospice sees death as the natural, final stage of life. It seeks to manage a patient's physical and emotional symptoms. The goal of hospice is that the person's last days be spent with dignity and quality, in comfort, surrounded by loved ones. Hospice care

affirms life and neither hurries nor postpones death. Its focus is on quality of life, rather than length.

A hospice program may give you the best chance of controlling your symptoms and keeping the quality of your life. An honest talk with your doctor can help you decide if it's the right thing for you.

There are over 3,000 hospice programs in the United States. Most of these are designed to provide care at home. To learn more about hospice care and hospice services where you live, please see our document called *Hospice Care*.

Money matters

It's important not to forget about money when deciding what type of palliative care you will get and where you will get it. Insurance policies differ widely. Check with your insurance company to find out which services are covered. Many insurance companies have a case coordinator who will act as your main contact. This person decides what your benefits cover in your specific case. Most health insurance plans cover hospice care. Many states mandate this.

Medicare has a special hospice benefit that not only covers care, but also pays for all medicines. For Medicare information, call the Medicare Helpline at 1-800-MEDICARE (1-800-633-4227); TTY: 1-877-486-2048. They can explain what Medicare covers and how to qualify. You can also get information on their website at www.cms.hhs.gov.

Serious illnesses often cause you to need a lot of money right away. In many states, you can turn death benefits from your life insurance policy into "living benefits." You can get these benefits in different ways, such as selling the policy or borrowing against it.

For more information, please see our documents, *Health Insurance and Financial Assistance for the Cancer Patient* and *Advanced Illness: Financial Guidance for Cancer Survivors and Their Families.*

Advance directives

Everyone has the right to make decisions about his or her own health care. This includes deciding when and if you want medical treatment to go on or to stop. You have the right to accept or refuse treatments, even treatments that will prolong your life. One way to hold onto your rights is by putting decisions about future health care in writing. This is called an *advance directive.* An advance directive is a legal paper. It states your wishes about health care choices. Or it can name someone else to make those choices if the time comes that you cannot do so yourself. Doctors follow your advance directive if you can't make medical decisions because of an illness or injury.

Advance directives can only be used for decisions about medical care. Other people cannot use them to control your money or property. Advance directives take effect only if you can't make your own decisions. Others can and may have to make health care decisions for you if you don't have an advance directive. An advance directive helps you

keep some control over these decisions. For more information, please see our document, *Advance Directives*.

Additional resources for advanced cancer

More information from your American Cancer Society

Here is more information you might find helpful. You also can order free copies of our documents from our toll-free number, 1-800-227-2345, or read them on our website, www.cancer.org.

Dealing with diagnosis

Talking With Friends and Relatives About Your Cancer (also in Spanish)

Talking With Your Doctor (also in Spanish)

Advance Directives

Helping Children When a Family Member Has Cancer: Dealing With a Parent's Terminal Illness

Helping Children When a Family Member Has Cancer: Understanding Psychosocial Support Services

Managing side effects

Nutrition for the Person With Cancer During Treatment: A Guide for Patient and Families (also in Spanish)

Anemia in People With Cancer

Anxiety, Fear, and Depression (also in Spanish)

Distress in People With Cancer

Bone Metastasis (also in Spanish)

Fatigue in People With Cancer

Nausea and Vomiting

Guide to Controlling Cancer Pain (also in Spanish)

Peripheral Neuropathy Caused By Chemotherapy

Nearing the End of Life (also in Spanish)

Insurance and financial issues

Advanced Illness: Financial Guidance for Cancer Survivors and Their Families

Health Insurance and Financial Assistance for the Cancer Patient (also in Spanish)

For caregivers

Caring for the Patient With Cancer at Home: A Guide for Patients and Families (also in Spanish)

What It Takes to Be a Caregiver

What You Need to Know as a Cancer Caregiver

Coping With Grief and Loss (also in Spanish)

Books

Your American Cancer Society also has books that you might find helpful. Call us at 1-800-227-2345 or visit our bookstore online to find out about costs or to place an order.

National organizations and websites*

Along with the American Cancer Society, other sources of information and support include:

National Cancer Institute (NCI)
Toll-free number: 1-800-4-CANCER (1-800-422-6237)
TTY: 1-800-332-8615
Website: www.cancer.gov

> Their "Cancer Information Service" offers free, accurate, up-to-date information about cancer to patients, their families, and the general public; also can help people find clinical trials in their area

CancerCare
Toll-free number: 1-800-813-HOPE (1-800-813-4673)
Web site: www.cancercare.org

> Provides free professional support services to anyone affected by cancer: people with cancer and their loved ones, caregivers, and the bereaved through phone counseling and online support groups; also offers a wide variety of cancer information as well as specialized programs and workshops

**Inclusion on this list does not imply endorsement by the American Cancer Society.*

No matter who you are, we can help. Contact us anytime, day or night, for cancer-related information and support. Call us at **1-800-227-2345** or visit www.cancer.org.

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