Treating Adrenal Cancer

If you've been diagnosed with adrenal cancer, your care team will discuss treatment with you. It's important to take time and think about your options. It's important to weigh the benefits of each option against the possible risks and side effects, and an experienced care team can help.

How is adrenal cancer treated?

The main types of treatment for adrenal cancer are:

- Surgery for Adrenal Cancer
- Radiation Therapy for Adrenal Cancer
- Chemotherapy for Adrenal Cancer
- Other Drugs Used to Treat Adrenal Cancer

Common treatment approaches

Depending on the type and stage of your cancer, you might need more than one type of treatment.

- Treatment Choices by Stage of Adrenal Cancer

Who treats adrenal cancer?

Doctors on your cancer treatment team might include:

- A surgical oncologist: a doctor who uses surgery to treat cancer
- An endocrinologist: a doctor who treats diseases in glands that secrete hormones
- A radiation oncologist: a doctor who uses radiation to treat cancer
- A medical oncologist: a doctor who uses chemotherapy and other medicines to treat cancer

You might have many other specialists on your treatment teamas well, including physician assistants (PAs), nurse practitioners (NPs), nurses, psychologists, social workers, rehabilitation specialists, and other health professionals.

- Health Professionals Associated With Cancer Care

Making treatment decisions

It’s important to discuss all treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. You may feel that you need to make a decision quickly, but it’s important to give yourself time to absorb the information you have learned. Ask your cancer care team questions.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

- Questions to Ask About Adrenal Cancer
- Seeking a Second Opinion

Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. 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 best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

- Clinical Trials

Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn’t mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor’s medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you

feel better, many have not been proven to work. Some might even be dangerous.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- Complementary and Alternative Medicine

Help getting through cancer treatment

Your cancer care team will be your first source of information and support, but there are other resources for help when you need it. Hospital- or clinic-based support services are an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- Find Support Programs and Services in Your Area

Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it’s important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- If Cancer Treatments Stop Working
- Palliative or Supportive Care

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is 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.

Surgery for Adrenal Cancer

The main treatment for adrenal cancer is removal of the adrenal gland, an operation called an **adrenalectomy**. The surgeon will try to remove as much of the cancer as possible, including any areas of cancer spread. If nearby lymph nodes are enlarged, they also will need to be removed and checked for cancer spread.

One way to remove the adrenal gland is through an incision in the back, just below the ribs. This works well for small tumors, but it can be hard to see larger tumors well.

More often, the surgeon makes the incision through the front of the abdomen. This lets the surgeon see the tumor more clearly and makes it easier to see if it has spread. It also gives the surgeon room to remove a large cancer that has grown into tissues and organs near the adrenal gland. For example, if the cancer has grown into the kidney, all or part of the kidney must also be removed. If it has grown into the muscle and fat around the adrenal gland, these tissues will need to be removed as well.

Sometimes, the cancer can grow into the inferior vena cava, the large vein that carries blood from the lower body to the heart. If this is the case, it requires a very extensive operation to remove the tumor completely and preserve the vein. To remove the tumor from the vein, the surgeon may need to bypass the body's circulation by putting the patient on a heart-lung bypass pump like that used in heart surgery. If the cancer has grown into the liver, the part of the liver containing the cancer might need to be removed, too.

It is also possible to remove some small adrenal tumors through a thin hollow, lighted tube (with a tiny video camera on the end) called a **laparoscope**. Instead of a large incision in the skin to remove the tumor, several small ones are made. The surgeon inserts the laparoscope through one of them. This lets him or her see inside the belly. Then, other instruments inserted through this tube or through other small incisions are used to remove the adrenal gland. The main advantage of this method is that because the incisions are smaller, patients recover from surgery more quickly.

Although laparoscopic surgery is used to treat adrenal adenomas (benign tumors), it often is not an option for treating larger adrenal cancers. This is because it's important to remove the tumor in one piece whenever possible. To remove a large tumor with a laparoscope, the surgeon might have to break it up into small pieces first. Doing that raises the risk of the cancer spreading. Adrenal cancers that have grown into nearby tissues or lymph nodes can also be hard to remove completely using laparoscopy.

For more about surgery to treat cancer, see Cancer Surgery.

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Radiation Therapy for Adrenal Cancer

Radiation therapy uses high-energy x-rays (or particles) to kill cancer cells. Radiation therapy is not used often as the main initial treatment for adrenal cancer because the cancer cells are not easy to kill with x-rays. Radiation may be used after surgery to help keep the tumor from coming back. This is called **adjuvant therapy**. Radiation can also be used to treat areas of cancer spread, such as in the bones or brain.

Types of radiation therapy

External beam radiation therapy focuses radiation on the cancer from a machine outside the body. Treatments are often given once or twice a day, 5 days a week for several weeks. Treatment is similar to getting an x-ray test, and is not painful. The actual treatment time lasts only a few minutes, although the setup time - getting you into place for treatment - usually takes longer so that the radiation is aimed accurately at the cancer. Before the treatment starts, the radiation team will take careful measurements to find the correct angles for aiming the radiation beams and the proper dose of radiation. This planning session, called simulation, usually includes getting imaging tests such as CT or MRI scans.

Brachytherapy (internal radiation therapy) uses small pellets of radioactive material placed next to or directly into the cancer, sometimes in thin plastic tubes. The tubes containing the pellets are left in place for a few days and then removed. The actual time is determined by the strength of the radioactive pellets and the size of the tumor. This type of radiation is not often used to treat adrenal cortical carncer.

Possible side effects

Common side effects of radiation therapy include:

- Nausea and vomiting
- Diarrhea (if an area of the abdomen is treated)
- Skin changes in the area being treated, which can range from redness to blistering

and peeling
- Hair loss in the area being treated
- Fatigue
- Low blood counts

More information can be found in Radiation Therapy.

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Chemotherapy for Adrenal Cancer

Chemotherapy (chemo) is the use of certain types of drugs to treat cancer. Typically, the drugs are given into a vein or by mouth (in pill form). These drugs enter the bloodstream and reach throughout the body, making this treatment useful for cancer that has spread (metastasized) to organs beyond the adrenal gland. Chemo does not work very well for adrenal cancer, so it is most often used for adrenal cancer that has become too widespread to be removed with surgery (although it is very unlikely to cure the cancer).

Mitotane

Mitotane is the drug most often used for people with adrenal cancer. It blocks hormone production by the adrenal gland and also destroys both adrenal cancer cells and healthy adrenal tissue. This drug can also suppress the usual adrenal steroid hormone production from your other, normal adrenal gland. This can lead to low levels of cortisol and other hormones, which can make you feel weak and sick. If this occurs, you'll need to take steroid hormone pills to bring your hormone levels up to normal. Mitotane can also alter levels of other hormones, such as thyroid hormone or testosterone. If that occurs, you'd need drugs to replace these hormones as well.

Sometimes mitotane is given for a period of time after surgery has removed all the (visible) cancer. This is called **adjuvant therapy** and is meant to kill any cells that were left behind but were too small to see. Giving the drug this way may prevent or delay the cancer's return. .

If the cancer has not been completely removed by surgery or has come back, mitotane will shrink the cancer in some patients. On average, the response lasts about a year,

but it can be longer for some patients.

Mitotane is particularly helpful for people with adrenal cancers who have problems caused by excessive hormone production. Even when it doesn't shrink the tumor, mitotane can reduce abnormal hormone production and relieve symptoms. Most patients with excess hormone production are helped by mitotane.

This drug can cause major side effects. The most common are nausea, vomiting, diarrhea, rashes, confusion, and sleepiness. Sometimes lower doses of the drug can still be effective and cause fewer side effects.

This drug is taken as a pill 3 to 4 times a day. Like other types of chemo, treatment with mitotane needs to be supervised closely by a doctor.

Other chemo drugs used for adrenal cancer

Drugs are sometimes combined with mitotane to treat advanced adrenal cancer. The drugs used most often are:

- The combination of cisplatin, doxorubicin (Adriamycin), and etoposide (VP-16) plus mitotane
- Streptozocin plus mitotane

Chemo drugs used less often, include:

- Paclitaxel (Taxol)
- 5-fluorouracil (5-FU)
- Vincristine (Oncovin)

These drugs may be given in different combinations and are often given with mitotane.

Chemo drug side effects

Chemotherapy drugs kill cancer cells but also damage some normal cells, which can cause some side effects. Side effects from chemo depend on the type of drugs, their doses, and how long treatment lasts. Common side effects of chemo include:

- Nausea and vomiting
- Loss of appetite
- Loss of hair
- Hand and foot rashes

- Mouth sores
- Diarrhea
- Increased risk of infection (due to a shortage of white blood cells)
- Problems with bleeding or bruising after minor cuts or injuries (due to a shortage of blood platelets)
- Anemia, fatigue, or shortness or breath (due to low red blood cell counts)

Along with the risks above, some chemo drugs can cause other side effects.

Ask your health care team what side effects you can expect based on the specific drugs you will get. Be sure to tell your doctor or nurse if you do have side effects, as there are often ways to help with them. For example, drugs can be given to help prevent or reduce nausea and vomiting.

More information about chemotherapy can be found in Chemotherapy.

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Other Drugs Used to Treat Adrenal

Cancer

Drugs other than mitotane may be used to block hormones made by the cancer or to lower the effects of the hormones. Treatment with some of these drugs may need to be supervised by an endocrinologist (hormone doctor) because they affect several hormone systems and might make it necessary to replace other hormones.

Ketoconazole and **metyrapone** can reduce adrenal steroid hormone production. This can help relieve symptoms caused by these hormones, but it doesn't shrink the cancer.

Some drugs block the effects of the hormones made by the tumor. These include:

- **Spironolactone (Aldactone)**, which decreases effects of aldosterone
- **Mifepristone (Korlym)**, which decreases cortisol effects
- **Tamoxifen, toremifene (Fareston), and fulvestrant (Faslodex)**, can block the effects of estrogen. These drugs are more often used to treat breast cancer, but can be useful in some patients (often men) who have adrenal tumors that make estrogen.
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Treatment Choices by Stage of Adrenal

Cancer

Treatment of adrenal cancer depends to a large degree on where the cancer started and how far it has spread.

Stages I and II

Surgery is the main treatment for stage I and stage II adrenal cancer. The entire adrenal gland will be removed. Since a person has 2 adrenal glands, removal of the diseased one does not generally cause problems for the patient. If nearby lymph nodes are enlarged, they will be removed as well and checked to see if they contain cancer cells. Most surgeons do not remove these lymph nodes if they're not enlarged.

In many cases, no further treatment is necessary. If the tumor was not removed completely, treatment with radiation and/or mitotane may be given after surgery to help keep the cancer from coming back.

These treatments may also be given if the tumor has a higher chance of coming back later because it was large or appears to be growing quickly (when looked at with a microscope). When treatment is given after surgery has removed all visible cancer, it is called **adjuvant therapy**. The goal of adjuvant therapy is to kill any cancer cells that may have been left behind but are too small to be seen. Killing these cells lowers the chance of the cancer coming back later.

Stage III

Surgery is the main treatment for stage III adrenal cancer. The goal of surgery is to remove all of the cancer. The adrenal gland with the tumor is always removed, and the surgeon might also need to remove some tissue around the adrenal gland, including part (or all) of the nearby kidney and part of the liver. The lymph nodes near the adrenal gland will also be removed. After surgery, adjuvant treatment with radiation and/or mitotane may be given to help keep the cancer from coming back.

Stage IV

If it is possible to remove all of the cancer, then surgery may be done. When the cancer has spread to other parts of the body, it usually cannot be cured with surgery. Some doctors may still recommend surgery to remove as much of the tumor as possible. This type of surgery is called *debulking*. Removing most of the cancer may help reduce

symptoms by lowering the production of hormones. Radiation therapy may also be used to treat any areas of cancer that are causing symptoms. For example, radiation can help when cancer that has spread to the bones is causing pain. Mitotane therapy is also an option. Treatment may begin right away, or it may be postponed until the cancer is causing symptoms. Other chemotherapy (chemo) drugs may also be used.

Recurrent adrenal cancer

Cancer is called **recurrent**when it comes back after treatment. Recurrence can be local (in or near the same place it started) or distant (in other organs such as the lungs or bones). Local recurrence may be treated with surgery to remove the cancer. This is more likely to be done if all of the cancer can be removed. Distant recurrence is treated like stage IV disease. Debulking (removing as much of the cancer as possible) surgery may be done to relieve symptoms. People with recurrent disease are often treated with mitotane and/or other chemo drugs. They may also receive radiation therapy. If the mitotane doesn't work or cannot be tolerated, other drugs can be given to lower hormone production. For more information on recurrence, see Understanding Recurrence.

Most of the time, these treatments provide only temporary help because the tumor will eventually continue to grow. When this happens and these treatments are no longer helping, treatment aimed at providing as good a quality of life as possible may be the best choice. The best medicines to treat pain are morphine and other opioids. Many studies have shown that taking morphine as directed for pain does not mean a person will become addicted.

There are many other ways your doctor can help maintain your quality of life and control your symptoms. This means that you must tell your doctor how you are feeling and what symptoms you are having. Many patients don't like to disappoint their doctors by telling them they are not feeling well. This does no one any good.

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