



# Understanding Small Cell Lung Cancer



[go2.org](http://go2.org)

# GO2 Patient Support

## For Everyone Impacted by Lung Cancer

We put people living with and at risk for lung cancer at the center of everything we do. From finding care to staying informed and building your resources, we are your community. As your friends, your guides, your advocates, your support system, GO2 is your go-to.



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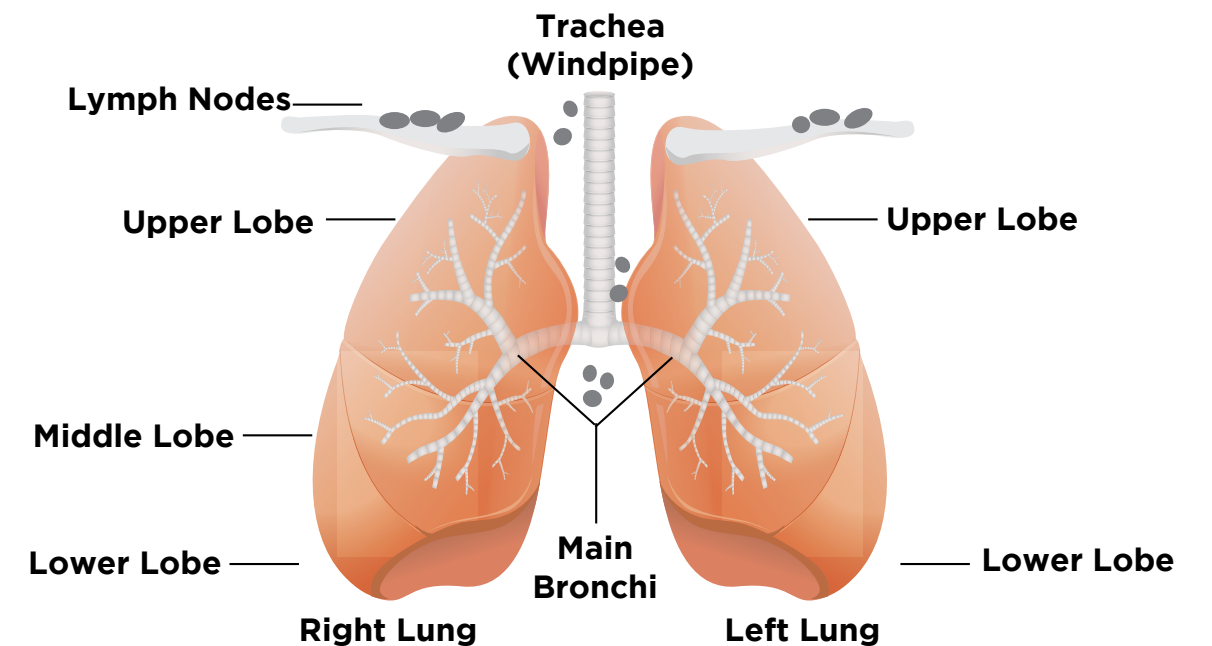


## Understanding Small Cell Lung Cancer was created to help you learn about your diagnosis, your treatment options, and other services that can help you.

Many have found the support of family, friends, and social or faith groups to be helpful in coping with lung cancer.

**If you would also like to connect with other people affected by lung cancer, we can help. To learn more about support groups or other services GO2 for Lung Cancer offers, call us at 1-800-298-2436 or email [support@go2.org](mailto:support@go2.org).**

## The Lungs



Your lungs are 2 sponge-like organs in your chest. Your right lung has 3 sections, called lobes and your left lung has 2 lobes. When you breathe, air enters through your mouth and nose and goes into your lungs through the trachea (windpipe).

The trachea (windpipe) divides into tubes called bronchi, which enter the lungs and divide into smaller branches called bronchioles. At the end of the bronchioles are tiny air sacs called alveoli.

## Small Cell Lung Cancer

Cancer occurs when the healthy cells in our body change and then grow and divide out of control. Lung cancer is cancer that begins in the lungs. It is one of the most common cancers in the United States.

### There are two main types of lung cancer:

- Small cell lung cancer (SCLC)
- Non-small cell lung cancer (NSCLC)

SCLC is less common but is the most aggressive (fast-growing) type. About 15 of every 100 lung cancers are SCLC. It is named for the small, oval-shaped cancer cells seen under a microscope. It most often starts in the bronchi in the center of the chest and spreads quickly.

## Risk Factors for Small Cell Lung Cancer

- **A history of smoking**  
This is the main risk factor for SCLC. Cigarettes contain chemicals that cause many types of cancer and other illnesses.
- **Being exposed to radon**  
Radon is a clear, odorless, tasteless radioactive gas that occurs naturally in soil and rocks.
- **Family history**  
Having a family history of lung cancer can increase your risk of lung cancer.
- **Radiation therapy**  
Having radiation therapy can increase the risk of cancer in that part of the body.
- **Other types of lung illness**  
Emphysema, chronic obstructive pulmonary disease [COPD], or tuberculosis can occur with lung cancer.
- **Being exposed to certain chemicals**  
Arsenic, asbestos, beryllium, uranium, and Agent Orange are types of chemicals that can cause lung cancer.
- **Being exposed to secondhand smoke**  
This is also called passive smoking.

**If you smoke, quitting is one of the most important lifestyle changes you can make to improve your health.**

**Even if you have lung cancer, quitting or cutting back on how much you smoke can help improve how you respond to treatment. If you want to quit, tell a member of your healthcare team. They want to help you.**

## Your Healthcare Team

Your healthcare team will include many people who have specialized skills in a certain area of lung cancer care. This is vital because they each have great knowledge and can talk as a team about your care and treatment plans. Cancer treatments can affect the whole body and each member of your team should know what the other team members are doing.

**Here are some of the healthcare team members that may work with you.**

**Medical oncologist:** A cancer doctor who uses medicine (such as chemotherapy) to treat cancer.

**Chemotherapy nurse:** A nurse who specializes in providing chemotherapy and can help manage side effects.

**Oncology social worker or counselor:** A highly trained healthcare team member who provides support and helps people find resources to meet their needs.

**Palliative care specialist:** A doctor, nurse, or other healthcare team member who provides relief from symptoms, pain, and stress of an illness like cancer.

**Pathologist:** A doctor who studies tissue from a biopsy to diagnose diseases.

**Patient advocacy group:** Groups like GO2 for Lung Cancer that provide education, support, and referral services at no cost.

**Patient navigator:** A nurse, social worker, or trained person who assists patients and loved ones on their path through the healthcare system.

**Pulmonary rehabilitation specialist:** A specialist who works to improve breathing and other effects of lung cancer to improve function.

**Pulmonologist:** A doctor who specializes in lung problems.

**Radiation oncologist:** A cancer doctor who uses radiation (high-energy beams) to treat cancer.

**Thoracic surgeon:** A doctor who specializes in surgery of the chest.





## Diagnosing SCLC

### Scans

During the diagnosis process, you will have different types of scans. These tests give your healthcare team more information about the size and location of the suspected area of cancer. The area may be called a tumor, spot, lesion, nodule, or mass. These scans are used to help make treatment choices and are sometimes used along with some biopsy methods. Each scan has its own purpose.

**CT (computed tomography) or “CAT” scan** can show tumors that may not be seen on a chest X-ray.

**LDCT (low-dose computed tomography)** is used as a screening tool for people who are at high risk to see if they have lung cancer.

**PET (positron emission tomography) scan** shows how a tumor is using glucose (also known as sugar). Since tumors use more glucose than other tissue, they appear as “hot spots” (bright areas) on the image. PET scans are often used to see if cancer has spread to other parts of the body. It’s not used to see if cancer has spread to the brain.

**MRI (magnetic resonance imaging)** creates detailed pictures of the body that are often used to see if cancer has spread to other parts of the body, including the brain.

### Biopsy Methods

During a biopsy, tissue is removed from the body for testing. The tissue is looked at closely under a microscope and is used to diagnose cancer and provide needed information to plan for the next steps in your care.

There are several types of biopsy methods that can be used based on your needs.

**Needle biopsy:** A needle is used to draw out fluid or tissue for testing. It is sometimes done with the help of a CT scan or MRI to guide the needle to the exact spot needed. There are two types of needle biopsies:

- **Fine Needle Aspiration (FNA):** Tissue or fluid is removed using a thin hollow needle. FNA can be done through the skin or during a bronchoscopy.
- **Core Needle Biopsy:** Tissue is removed using a wider needle. More tissue can be removed than with FNA.

**Thoracentesis:** Fluid is removed from the space around the lungs using a hollow needle inserted into the chest.

**Bronchoscopy:** A thin, lighted tube (bronchoscope) is passed down the throat through the mouth or nose and into the center area of the lungs. A sample of a tumor can be removed for testing.

- **Endobronchial Ultrasound (EBUS):** Uses a bronchoscope and ultrasound (high-frequency sound waves) and allows for a better view of the center of the chest to see if the cancer has spread.

**Surgical biopsy:** Tissue is removed during surgery.

**Liquid biopsy:** Blood or other fluid is removed for biomarker testing to help with planning treatment.



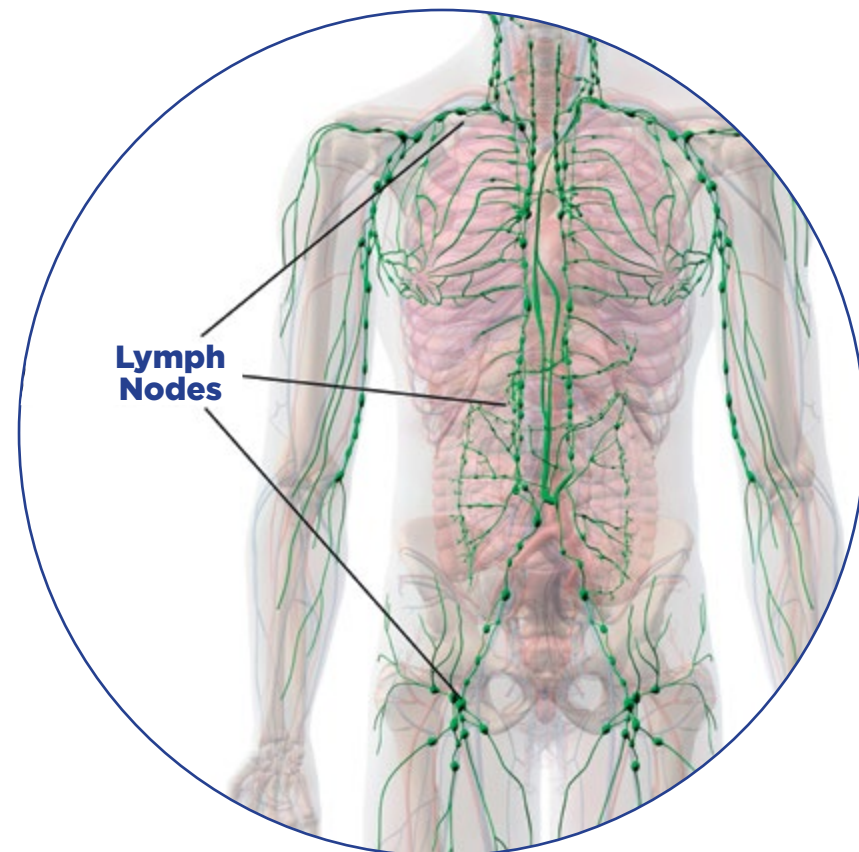
## Lymphatic System

The lymphatic system includes organs, vessels, and nodes that are found all over your body. It collects extra fluid and returns it to the blood to fight infection.

Like blood vessels, lymph vessels help move lymph fluid throughout the body. Lymph fluid contains white blood cells, which help to fight infection.

Lymph nodes are small, oval-shaped organs within the lymphatic system. The nodes trap and collect things that could be harmful so your white blood cells can attack them. Lymph nodes are found all over the body, but major groups can be found behind the knee and elbow joints and in the groin, armpits, neck, and chest. A large group that drains lymph fluid from the lungs is found in the center of the chest.

Cancer cells can break off from the main tumor and travel to other parts of the body through the lymphatic system. Some of these cells become trapped within a lymph node and start to grow. If cancer is in the lymph nodes, your healthcare team will use this information to help stage cancer.



## Stages of SCLC

Many cancers are divided into four stages: I, II, III, and IV (1, 2, 3, and 4).

Most often, small cell lung cancer is called limited stage (stage I through III) or extensive stage (stage IV).

**Limited stage** describes SCLC that is only found in one lung or nearby lymph nodes.

- **Stage I (1)** The tumor is only in one lung and is no more than 5 cm (about the size of a lime) with no spread to nearby lymph nodes.
- **Stage II (2)** The tumor is only in one lung and may be larger than a stage I tumor. The cancer may have spread to nearby lymph nodes but not beyond.

- **Stage III (3)** The tumor is only in one lung and may have grown into other parts of the chest or spread to more lymph nodes.

**Extensive-stage** describes SCLC that has spread outside the lung to other parts of the body.

- **Stage IV (4)** The tumor may be any size and the cancer has spread to the other lung, the lining of the lung or organs outside the lungs.

It's very important to know your stage of cancer. It helps your healthcare team create a treatment plan that is best for you.





## Treatment Options

**Treatment for SCLC often includes more than one of the following:**

- Chemotherapy
- Radiation
- Immunotherapy
- Surgery
- Clinical Trials
- Palliative Care (care for symptoms and side effects)

**Treatment depends on:**

- The stage of the cancer
- How well your lungs are working
- Other health problems
- If you can complete daily tasks like eating, bathing, and dressing on your own

## Chemotherapy

Chemotherapy (chemo) is a treatment that kills cancer's fast-growing and dividing cells. It is given in cycles followed by a rest period to allow your body time to recover. It is the most common treatment for SCLC and is given as a combination of two chemo drugs.

**The most common SCLC chemo drugs are:**

- Platinol (cisplatin) and VP-16 (etoposide)
- Paraplatin (carboplatin) and VP-16 (etoposide)
- Zepzelca (lurbinectedin) if your cancer continues to grow after other chemo drugs

**Other chemo drugs may be used if SCLC returns. They can include:**

- Hycamtin (topotecan), taken by mouth or by injection
- Taxol (paclitaxel)
- Adriamycin (doxorubicin)

Note that chemo can also be combined with immunotherapy (see page 16).

### Side Effects of Chemotherapy

You may not have any side effects, or you may have just a few. It is always important to talk to your healthcare team about ways to manage side effects before you have them. Very often, they can be prevented or treated.

**Common side effects of chemo may include:**

- Hair loss
- Nausea and vomiting
- Loss of appetite
- Constipation
- Diarrhea
- Shortness of breath
- Tiredness (fatigue)
- Numbness or tingling in the hands or feet (neuropathy)
- Low platelets
- Low red/white blood cell count (anemia)



## Radiation Therapy

Radiation therapy is a treatment that uses high-energy beams to kill or shrink the cancer cells. It can be used to manage pain, shrink a tumor, or slow down the growth of cancer.

SCLC is most often treated with external beam radiation which aims high-energy beams on the exact spot where cancer has been found.

### Common side effects of radiation therapy to the chest:

- Tiredness (fatigue)
- Loss of appetite
- Inflammation of the esophagus (esophagitis)
- Inflammation of the lung (pneumonitis)
- Skin irritation
- Redness
- Itching
- Dryness

### Brain Radiation Therapy

When SCLC has spread to the brain, whole-brain radiation therapy (WBRT) or stereotactic brain radiotherapy (SBRT) may be used as treatment. Tiredness and skin irritation are common.

### Common side effects may include:

- Hair loss
- Nausea
- Vomiting
- Headache
- Fever
- Short-term memory changes

To learn more about the brain and SCLC, please see our booklet “Small Cell Lung Cancer Brain Metastasis” at [go2.org/education](http://go2.org/education).

## Prophylactic Cranial Irradiation (PCI)

### What is PCI?

SCLC often spreads (metastasizes) to the brain. For this reason, your healthcare team may talk to you about PCI. This kind of radiation treatment is sometimes used to decrease the risk of cancer spreading to the brain.

It's very important to talk to your healthcare team about the effects of this treatment. PCI is known to decrease the risk of SCLC spreading to the brain but it's unclear if it helps to increase survival. It can also cause changes in memory and other thinking skills.

Talk to your team about your risk of SCLC spreading to the brain. Based on your stage of cancer and other health issues they can help you decide if PCI is the best choice for you.

### What can I expect with PCI?

PCI usually starts 3-4 weeks after chemotherapy ends. During PCI, your head must stay very still so the radiation is given the same way each time. To help, a plastic mask will be made before treatment starts.

The doses of radiation used in PCI are smaller than those used to treat cancer that has spread to the brain. If you have anxiety or fear of being in

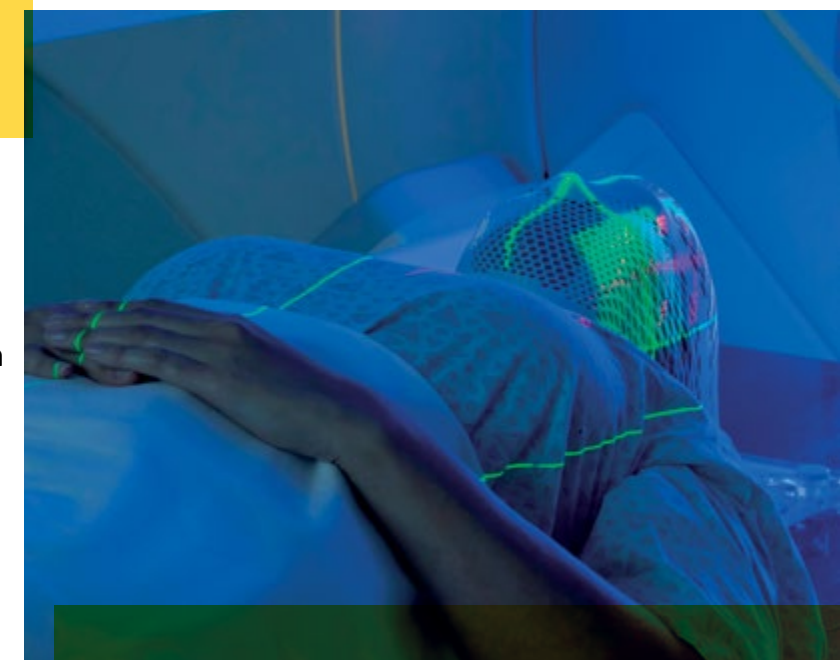
a closed space during your treatment, ask your team about medicine or other options to help you feel more comfortable.

### Short-Term Side Effects

Due to the low dose of radiation used, side effects are usually mild. Feeling tired and hair loss are the most common. Unless tiredness is an issue or anti-anxiety medicines are used, you may be able to drive home after PCI.

### Long-Term Effects

Some people worry that PCI will affect their memory and other thinking skills. Major long-term effects are unlikely. Like the normal aging process, attention and short-term memory seem to be the most affected.





## Immunotherapy

An important part of the immune system is its ability to see the difference between normal cells in the body and those it sees as “foreign” – like cancer cells. To do this, it uses “checkpoints” on certain immune cells called T-cells. These checkpoints need to be turned on to start an immune response. However, cancer cells can find ways to use these checkpoints to avoid being attacked by the immune system.

A type of immunotherapy called “checkpoint inhibitors” fixes this problem and keeps the immune system active. It works on a certain protein on the surface of your T-cells. One example of this protein is PD-1/PD-L1 (learn more in our Immunotherapy booklet).

### The immunotherapy drugs currently approved for SCLC are:

#### First Line (as your first treatment):

- Tecentriq (atezolizumab)
- Imfinzi (durvalumab)

These two drugs are given along with chemo as the first treatment for extensive stage lung cancer.

#### Common Side Effects of Immunotherapy

Side effects from immunotherapy are often caused by the increased activity of the immune system.

These may include:

- Tiredness (fatigue)
- Flu-like symptoms
- Rashes
- Diarrhea
- Shortness of breath
- Inflammation within the lungs, liver, kidneys, or hormone-producing glands such as thyroid or pituitary

**Recent research has shown that immunotherapy combined with chemo as a first treatment can result in better overall survival in people with late-stage SCLC as compared to using chemo alone.**

## Surgery

Surgery is not often used to treat SCLC, but if cancer is found in stage I (1) surgery may be an option.

It is important to learn as much as you can about the size and location of cancer before making a choice about surgery.

## Clinical Trials

Clinical trials are also an important option for people diagnosed with SCLC and should be explored every time a treatment decision is made. Clinical trials may allow you to receive a new treatment or combination of treatments that are still being studied by doctors and researchers.

### Clinical trials for SCLC patients may include:

- New types of immunotherapy that help your body fight cancer better
- Combined types of immunotherapy
- Targeted therapies that work on the part of cancer cells that make it grow and spread

Research into immunotherapies, targeted therapies, and other new treatments provides more options and hope to people living with SCLC.

## GO2's LungMATCH Program

### Treatment & clinical trial navigation assistance

Our trained and compassionate team offers specialized treatment and trial navigation to guide you along your treatment journey.

With information about your stage, type of lung cancer and past and present treatments, we can help you understand the clinical trial process and find trials that fit your needs.

Having clinical trial options to discuss with your healthcare team can help you decide if joining a trial is right for you.





## Palliative Care

Palliative care is a service that can help you find ways to prevent or ease symptoms and side effects from cancer or cancer treatment.

### **Palliative care may be able to help with the following problems:**

- Constipation
- Diarrhea
- Difficulty breathing
- Tiredness (fatigue)
- Loss of appetite
- Mood changes related to treatment
- Nausea
- Pain
- Sleep problems
- Weight loss

### **Who provides palliative care?**

It is provided by a member of the healthcare team that has special training or knowledge in how to increase the quality of life for people with cancer. Palliative care teams

may include nurses, dietitians, social workers, chaplains, and therapists.

### **Where is palliative care provided?**

Palliative care options depend on the location and your needs. Sometimes palliative care is offered in the hospital, outpatient office, long-term care facility, or in your home.

### **What palliative care is not:**

- Palliative care is not a treatment to cure or reduce cancer.
- Palliative care is not hospice. Hospice is a service that is only for people who are no longer getting cancer treatments and are thought to have less than 6 months of life.

### **Finding palliative care:**

If you would like to find palliative care, ask your healthcare team to locate this service near you.

For more information about lung cancer and current treatments, and to discuss support options or referrals to other resources, please visit [go2.org](https://go2.org), contact our HelpLine at 1-800-298-2436, or email [support@go2.org](mailto:support@go2.org).





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