A person is lying on a CT scanner table, positioned inside the gantry. The background behind the person is a large American flag. The person's arms are crossed over their chest, and they appear to be wearing a white hospital gown. The CT scanner gantry is visible, with various control panels and a light fixture on the left side.

*Providing the best in cancer care for Veterans*

TREATING **LUNG CANCER** AT  
VA PITTSBURGH HEALTHCARE SYSTEM

★  
**A HERO'S GUIDE**

*VA Pittsburgh's  
state-of-the-art  
TomoTherapy  
machine,  
which delivers  
radiation to  
patients.*



Here at **VA Pittsburgh**, we know that **treating lung cancer** is a challenging and, at times, scary experience.

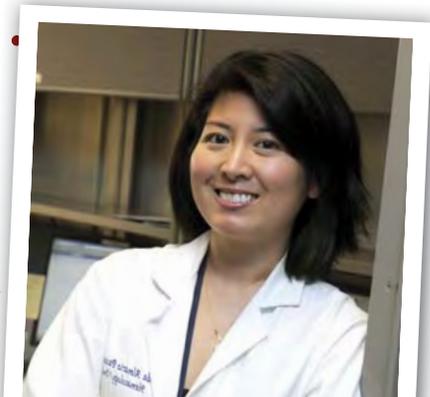


That's why we've developed our patient care to ensure your treatment is as swift and effective as possible, so that you spend less time waiting and more time conquering the disease. From the moment you are diagnosed to your follow-up appointments, our goal is to keep you informed—and comfortable—at every step.

Patients have four treatment options: **surgery, radiation, chemotherapy and palliative care**. We often pair different types of treatment. Our medical team has created a fast-track process to deliver lung cancer care, and we work together to tailor a plan specifically for you.

“ VA Pittsburgh patients can get all of their care under one roof, which means better communication between surgeons, radiation, doctors and labs—and more continuity throughout treatment.”

**DR. VIDA PASSERO** ONCOLOGIST .....



# LUNG CANCER PRIMER

**A variety of lung cancers exist, but there are two main types:**

- **NON-SMALL CELL** spreads slowly and is usually treated with surgery and a combination of **chemotherapy** and **radiation therapy**, if it's at an early stage. We treat more advanced non-small cell cancer with radiation and chemotherapy, or chemotherapy alone.

We classify non-small cell lung cancer in four stages—ranging from **I**, an early stage, to **IV**, the most advanced—based on how much the cells have spread.

- **SMALL-CELL** is an aggressive form typically treated with chemotherapy—and sometimes radiation. It can spread rather quickly to other parts of the body. We check patients regularly during their treatment to ensure tumors, or abnormal cell growths, haven't developed in other areas.

We define small-cell as **limited** or **extensive stage**, depending on whether it is confined to the chest or has moved elsewhere.

“*Listen to your doctor and nurse, and ask millions of questions. They've got the time to explain everything, and that helped ease my mind—a whole lot. They know how to translate the medical words into normal, everyday talk.*”

**ALBERT GUMP** PATIENT, NAVY VETERAN .....▶





*The earlier we detect your cancer, the better our chances of effectively treating it—and healing you.*

Be sure to talk with your doctor about the type and stage of lung cancer you have. You should also ask what the goal of your treatment is—curative, which aims to completely eliminate the cancer, or palliative, which seeks to shrink the tumor and improve your quality of life.

**VA FASTFACT**

VA Pittsburgh medical staff meet regularly for a case-by-case discussion of their lung cancer patients, sharing their progress and ensuring they receive the very best of care.



*“ There are different kinds of lung cancer, and they are treated differently. Patients can’t compare their care to another person’s. ”*

← **JOYCE TOKARSKY** ONCOLOGY NURSE

# TREATING THE TUMOR

## SURGERY

*Surgery is the preferred and most definitive treatment for patients with early-stage cancer and seeks to remove any visible tumors.*

Our physicians will determine whether you are a surgical candidate with diagnostic tests, such as measuring airflow in your lungs, tracking how your heart responds to stress and documenting where cancer cells are in your body. The exact location and size of your cancer also guides their decision.



A surgeon may discuss these possible procedures with you:

**Video-assisted thoracic surgery** removes the cancer through a small incision with the help of a **thoracoscope**, an instrument with a light, lens and camera that is inserted into your chest wall and projects images onto a small screen.

**A thoracotomy** involves opening your chest to remove all or part of your lung—and possibly lymph nodes—depending on the extent of your cancer.

During the operation, your surgeon will take samples from your lymph nodes and the tissue surrounding the tumor to see if your cancer has spread. Our surgical staff will follow up with you every few months to check on your condition. Patients might also undergo chemotherapy to further wipe out cancer cells.

“ *A lot of people feel that once we do the surgery, that’s it. But we keep an eye on our patients. They have to come in so we can make sure the cancer doesn’t come back.* ”

← ..... **SHERRILL SHEPLER** THORACIC SURGERY NURSE

# RADIATION

*Your treatment may include radiation—high-energy rays that kill cancer cells.*

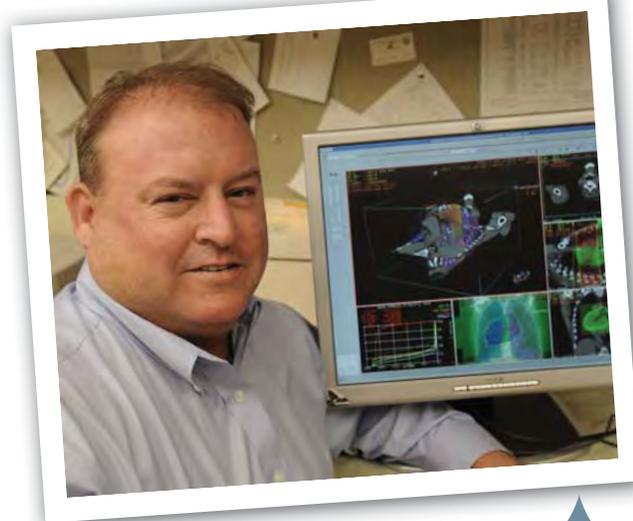
**Radiation therapy** aims to shrink the tumor and decrease the chance of the cancer coming back to the same area. We may suggest radiation to either cure the tumor or simply control its growth and prevent other symptoms, such as chest pain or difficulty breathing.

On average, patients receive radiation therapy **daily for five to six weeks**. We use the most advanced tools to safely treat your cancer with precision. Your radiation oncologist will work with a staff of specialists to prepare a planning study that charts the best method for targeting the tumor.

If you have early-stage cancer and health conditions that preclude surgery, your doctor may recommend **radiosurgery**, which focuses high doses of radiation on a very specific, small area. We also use radiosurgery for **metastases**, or tumors that have spread elsewhere.

Radiation therapy may cause side effects such as red or sore skin in the treated area, trouble swallowing or a cough.

We often treat patients with a combination of radiation and chemotherapy. Your regimen may call for both to better ensure that your cancer not only gets smaller but goes away.



“Our extensive planning studies help ensure that we are 100 percent right 100 percent of the time when delivering treatment, so that you receive radiation in the safest—and most effective—way possible.”

**DANIEL LUDOLPH**  
MEDICAL PHYSICIST

# CHEMOTHERAPY

*Chemotherapy involves intravenous or oral drugs that kill cancer cells and treats the entire body.*

Your doctor will consider a number of factors before determining whether chemotherapy is right for you, including the type of lung cancer and any other illnesses or symptoms you have. We perform a variety of diagnostic assessments—**PET scans** as well as heart and blood tests—before settling on the best drug combination and regimen. Our chemotherapy nurses will then explain what you should expect in the weeks and months ahead.



We typically give chemotherapy **every three weeks**, but your regimen may vary. Your **designated chemotherapy nurse** will develop a calendar for you to keep track of appointments and procedures—and call you with test results and other important information.

Throughout treatment, your doctor will monitor your condition and can prescribe medications to lessen some of the side effects, which may include fatigue, loss of appetite and nausea.



*“ Having an assigned nurse definitely makes a difference. You’ve got somebody that you feel knows your history, which makes you feel more comfortable—and that’s important. ”*

◀..... **RICHARD TAYLOR** PATIENT, ARMY VETERAN



## VA FASTFACT

About 80 percent of VA Pittsburgh patients go through chemotherapy and radiation treatment.



# PALLIATIVE CARE

*Our specially trained Palliative Care Team can help manage your symptoms, teach you and your family about the disease and options, and offer spiritual and emotional support.*

You may choose to forego surgery, chemotherapy or radiation. Palliative care is an option available to all patients at any time during treatment. We encourage you to speak with your physician if you're interested in this resource.



*VA Pittsburgh constantly explores new treatment options for our patients. Talk to your doctor about whether you qualify for one of our clinical trials.*

## WHAT'S NEXT?

Once you've completed your treatment, we will perform several tests to evaluate its effectiveness and determine whether another regimen is necessary. If the tumor is still present, your doctor will discuss your options, such as different drug combinations or therapies.

If treatment has eliminated your tumor, you can expect **checkups every three months** for two years, as we continue to closely follow your condition. These appointments may include additional imaging tests, such as CT or PET scans. After two years, your checkups will become less frequent.

# REDUCE THE RISK

**These factors can cause or contribute to lung cancer:**

**Smoking** The most common cause of lung cancer, smoking damages lung cells—as does inhaling secondhand smoke. If you are a smoker, talk to your doctor about trying a nicotine patch or gum, or ask about our **smoking cessation programs**.

**Work environment** Construction and chemical workers—as well as those who work in jobs that involve exposure to asbestos or substances such as arsenic, soot and nickel—face a potential risk of lung cancer, particularly after years of exposure.

**Agent Orange** This chemical commonly used during the Vietnam War can cause cancer. If you were exposed to Agent Orange during your tour of duty in Southeast Asia, you may qualify for disability benefits.

**Radon** This radioactive gas comes from a breakdown of uranium in rocks and soil and can pose a threat to mine workers.

**Family or personal history** If you or a family member has had lung cancer, your likelihood of developing it is greater.



“Smoking feeds the cancer cells that we’re trying to kill. We strongly encourage patients to stop smoking, especially during treatment.”

**DR. ANDREW LIMAN**  
ONCOLOGIST



# F.A.Q.

## How long is a daily dose of radiation, and will it make me radioactive?

Patients are usually on the treatment table for about 10 minutes. No, the radiation will not make you radioactive or a threat to others.

**Am I going to lose my hair?** That depends on your drug regimen; not all chemotherapies cause hair loss. Radiation causes it only in the treated area.

**Will I be able to work?** Some patients continue working during treatment, but this largely depends on the treatment in question—and you.

**What can I eat? Are there any dietary restrictions?** A VAPHS dietician will go over eating guidelines you should follow. You also may see a dietician if you appear to be losing a lot of weight.

**During treatment, when should I call the hospital?** If you're on chemotherapy and your temperature is more than 100.5 degrees, come to the hospital or call 911.

## VA FASTFACT

Nationwide, nearly 70 percent of people with lung cancer are older than 65, and the average diagnosis age is 71.



## ADDITIONAL RESOURCES

Our **staff social worker** can help tackle obstacles to such as problems with finances and accommodations, and guide patients to outlets for emotional support.

**412-360-6284**

**Chaplain Service** provides spiritual counseling and guidance to patients and their families.

**412-954-4001**  
**412-822-1550**

The **Disabled American Veterans van coordinator** can help patients who need transportation assistance, particularly those traveling long distances.

**412-360-6957**

Our **smoking cessation program** supports Veterans who are trying to kick the habit.

**412-360-1864**





To learn more about lung cancer care at VA Pittsburgh,  
contact the **Hematology-Oncology Department**:  
412-360-6178



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