

Facts About Lung Cancer

Lung cancer is characterized by the uncontrolled growth of abnormal cells in one or both of the lungs. There are many different kinds of lung cancer, but the two main types of lung cancer are non small cell and small cell, which comprise more than 90% of all lung cancers. Non small cell lung cancer is more common than small cell lung cancer. Non small cell lung cancer is further divided into adenocarcinoma, squamous cell, and large cell types. Small cell lung cancer is thought to be more aggressive and is sometimes referred to as "oat cell cancer".

Risk Factors for Lung Cancer

The main risk factors for lung cancer according to the American Cancer Society are

- Tobacco smoking, whether 1st hand or 2nd hand
- Occupational exposures to asbestos and other toxic agents

Diagnosing Lung Cancer

Lung cancer is diagnosed by a pathologist examining tumor cells. Your doctor can direct the type of biopsy, lab, or procedure that will obtain tissue for pathology, such as bronchoscopy (endoscopy of the airway), sputum cytology, needle biopsy, or thoracentesis (obtaining a sample of fluid around the lung).

Staging

When a diagnosis of lung cancer is confirmed, the American Joint Commission on Cancer (AJCC) recommends determining the stage or extent of spread of the cancer. Your doctor may recommend one of a number of studies, including PET CT scan, CT scan and bone scan, MRI of the brain, and possibly a surgical procedure called mediastinoscopy.

Treatment

Treatment of lung cancer depends on the histologic type of lung cancer, the patient's performance status, and the stage of disease. Your doctors will determine whether you are a candidate for surgery and whether you should receive cytotoxic chemotherapy, targeted medical therapy, and radiation.

Radiation therapy can play an important role in limited stages of lung cancer by helping to provide local control. Radiation can also sometimes palliate pain and symptoms in more extensive stages of lung cancer.

External Beam Radiation Therapy

We deliver external beam radiation therapy via 3-dimensional conformal radiotherapy (3D-CRT) which combines multiple radiation treatment fields which deliver CT guided photons and electrons precisely to the tumor while sparing healthy tissue. Treatment planning for radiation therapy is performed using a 16 slice Philips Brilliance™ CT equipped with respiratory gating which enables 4-Dimensional planning for superior radiation treatment delivery. Radiation is delivered on week days in sessions usually lasting under 30 minutes. Your radiation oncologist, physicist, and dosimetrist will calculate the exact number of weeks of therapy. Side effects can include but are not limited to fatigue, skin irritation, and swelling. Tell your radiation oncologist or nurse about any symptoms you may have and how best to address them.

Stereotactic Radiosurgery

Certain patients may be candidates for receiving high doses of precision guided radiation on a daily basis for one to several days, i.e. Stereotactic Radiosurgery or Radiation Surgery Without Incisions. Stereotactic Radiosurgery utilizes very high doses of CT guided radiation beams and requires that the patient remain immobile during treatments to maintain the precision of therapy. This technique may sometimes be indicated in brain cancer, lung cancer, painful metastatic lesions to organs such as the liver, and even in specific benign conditions such as trigeminal neuralgia and brain blood vessel malformations.