What Is It?
The lung is an essential organ whose principal functions are to transport oxygen through respiration into the bloodstream and to release carbon dioxide into the air. There are two types of feline lung cancer, primary and secondary. Primary lung cancer that forms directly from lung tissue is less common than secondary lung cancer, which has spread to the lungs from elsewhere in the body. Primary lung cancers are uncommon and mostly malignant adenocarcinomas, 50% of which are expected to have metastasized (spread) by the time of diagnosis. These tumors are aggressive and spread to other areas in the chest and lymph nodes, and rarely the digits, bone, and skin. Metastasis typically appears as multiple nodules in the lung tissue as opposed to a singular mass. Mammary carcinoma (breast cancer) is the most common cancer to metastasize the the lung tissue. Symptoms include coughing (may produce blood or mucous), exercise intolerance, weight loss, trouble breathing, and shortness of breath. Cats may also experience fluid buildup around the lungs that may require drainage by your veterinarian. Up to 33% of cats may not show any respiratory specific signs of illness instead displaying vague anorexia, lethargy, and weight loss. Occasionally an affected cat will present with a limp due to metastatic spread to the bones. Diagnostically there are several conditions that can be caused by similar symptoms that should be ruled out such as heart failure, heartworm infection, and bronchitis. The environment plays an important role in the development of lung cancer as well. Secondhand smoke is a known cause of increased risk for lung cancer in cats. Brachycephalic (push-nose breeds) breeds are more susceptible as the shortened nasal passages reduces filtering of harmful substances from the air.

Diagnosis
Early detection of lung tumors is difficult as clinical symptoms typically do not present until the lung mass has grown large enough to affect the overall health and function of the cat. Baseline diagnostics include blood work, lymph node biopsy (to determine possible spread of the cancer), chest x-rays, and ideally a lung biopsy to secure a diagnosis. A CT scan, if possible, is optimal for diagnosis and treatment planning. An abdominal ultrasound helps check for the presence of other tumors elsewhere in the body. This is especially useful for metastatic cancer to assist in identifying the location of the primary tumor.

Treatment and Management
For primary single lung tumors, surgical removal of the affected lung lobe can result in the complete removal of the mass. However, this is a major surgery that requires time and dedication to home care in order for your cat to fully recover. In addition, chemotherapy and/or radiation may be beneficial. Though research is lacking regarding valid treatment options, chemotherapy can slow the progression of disease for some cats. Radiation therapy is a viable treatment option depending on the location of the tumor relative to other important structures like the heart, which may become harmed in the treatment process. Metastatic lung cancer is most commonly treated with radiation or chemotherapy. Surgery for metastatic disease is not typical, but can be discussed on a case by case basis. Unfortunately primary adenocarcinomas in cats display resistance to many anti-cancer drugs forcing palliative-only therapy.

Prognosis
Cats affected by a single primary lung tumor without evidence of metastasis...
Management Tips

Consider providing:
- Easily accessible food and water
- Access to safe, quiet areas
- Warm, soft sleeping areas
- Natural calming products
- Wet food over dry food
- Palliative removal of fluid from the chest/abdomen by your veterinarian
- Room purifiers to decrease air pollution
- Low energy, creative stimulation
- Let your pet determine activity level

Try to:
- Be consistent with medications
- Monitor respirations
- Provide proactive pain management
- Track appetite, weight, respirations etc.
- Track the good days vs. the bad days
- Limit stress (kids, noise)
- Use gentle handling at all times
- Provide humidity in dry weather
- Stay consistent with preventative care
- Keep inside
- Provide easy access to important things
- Provide multiple litter boxes
- Use litter that does not produce dust

Before your pet’s condition becomes unmanageable or they are losing quality of life, it is important to begin end-of-life care discussions. Learn about pet hospice care and/or euthanasia services in your area so you are prepared.