

What is lung cancer?

The lungs are a pair of organs located on each side of the heart, which are responsible for the exchange of oxygen and carbon dioxide from the air to the blood and out. The cells in our body constantly require a fresh supply of oxygen to produce energy. The air enters our body through a windpipe, traveling to either the right or left bronchus, which is further divided into smaller bronchioles that each have a tiny sac at the end called an alveoli. A network of tiny blood vessels, called capillaries surround the alveoli. These capillaries are so small that only one red blood cell can pass through it each time and it is through this passage that oxygen and carbon dioxide is exchanged.

Almost 90 to 95 per cent of lung cancers begin in the epithelial cells lining the bronchi and bronchioles, which continue to divide out of control and develop into a lump called a carcinoma. Since lung cancer can spread very early after it forms, it is known as one of the most difficult cancers to treat.

What are its symptoms?

Few symptoms are noted in the early stages of lung cancer. The most common ones are noticed in the advanced stage of lung cancer and include persistent coughing, wheezing, shortness in breath, chest pain, a change in voice, recurring pneumonia or bronchitis, and coughing up blood. While some of these symptoms are also associated with other diseases, you should consult a doctor if you are experiencing any of

these symptoms to have the problem diagnosed and treated as early as possible.

What are the risk factors associated with lung cancer?

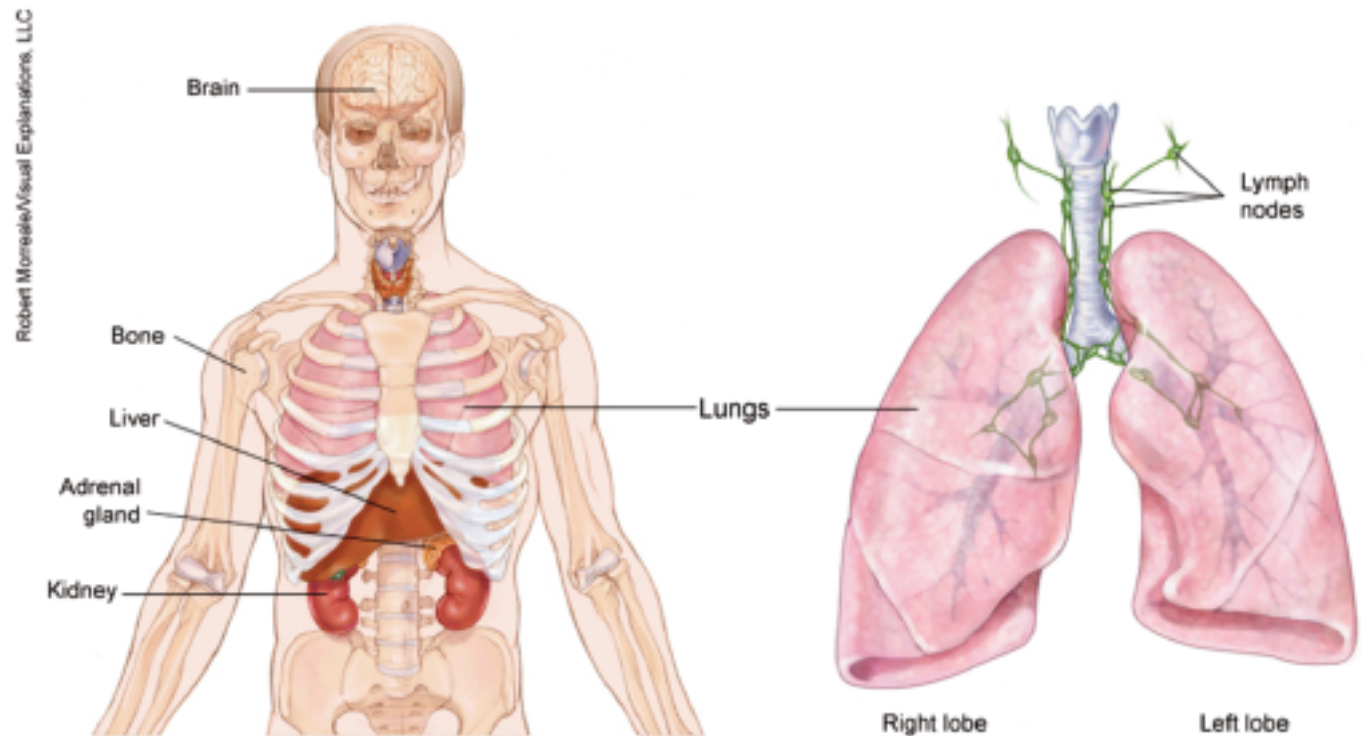
- 1 Smoking** – Smoking is the leading cause of lung cancer as it triggers genetic changes in the cells of the lungs. Those who are also exposed to second-hand smoke, *huqa* or *sheesha* included, and other products containing tobacco are also at high risk of developing lung cancer.
- 2 Exposure to radon or asbestos** – Radon is

a naturally occurring, colourless and odourless gas that can lead to increased risk of lung cancers. Asbestos is a naturally-occurring mineral that is frequently used in construction and inhaling particles of this substance can lead to cancer.

- 3 Chronic lung disease** – Diseases such as asthma, bronchitis, pneumonia, emphysema and tuberculosis, increase risk of lung cancer greatly.

What tests will I have to take to detect it?

Your doctor will go through your medical history



and conduct a physical exam first to check for signs related to breathing difficulty, airway obstruction, or lung infections. Your doctor will order a chest x-ray to examine any suspicious areas of the lungs.

Your doctor may also order a CT scan, PET CT scan, or MRI if the x-ray did show any abnormalities or if they need to get a closer look at the tumour. A bronchoscopy may be conducted where a thin tube is inserted through the nose or mouth to obtain a tissue sample for examination under a microscope, better known as a biopsy. A bronchoscopy is a safe procedure that is usually performed by a pulmonologist under anaesthesia. Another test your doctor may order is sputum cytology, which is the examination of mucus coughed up from the lower airways for the presence of tumour cells.

What is the treatment for this type of cancer?

There are many types of treatment options for lung cancer:

Surgery is one option and it is usually used to remove a tumour that has not spread beyond the lungs. Removal of the tumour does not guarantee a cure as the cancer may reoccur at some point in the future.

Both radiation therapy, which uses high-energy radiation rays to destroy cancer cells, and chemotherapy, which uses anti-cancer drugs to eliminate cancer cells are also used to treat all stages of lung cancer.

Biological therapy is another option, where certain substances travel through the blood affecting cells all over the body. In this method, the immune system naturally fights the cancer.

What can I do to prevent lung cancer?

Make sure you get yearly examination from your physician. Properly manage and treat any chronic lung diseases you have. Do not smoke or use other tobacco products. Reduce exposure to chemicals such as radon, asbestos, and smoke-related pollution. Implement a healthy diet and exercise regularly. Again, do not forget to talk to your physician if you experience any of the risk factors associated with this type of cancer.

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INFORMATION ON LUNG CANCER

