

## LUNG CANCER

**Lung cancer**, also known as **malignant lung tumor**, refers to the malignant tissue changes either in the lungs themselves or the bronchi. Malignant lung tumors are also commonly referred to as lung carcinoma or bronchogenic carcinoma. Lung cancer usually originates from altered cells in the mucous membrane of the bronchi, rarely from the lung tissue itself. The bronchi are branching tubes that deliver air to the lungs. The lungs are a paired organ, consisting of the left lung and the right lung.

### SYMPTOMS

- Persistent cough that does not improve despite treatment (*often the first symptom*)
- Worsening "smoker's cough" that has been present for a long time
- Shortness of breath and other breathing difficulties
- Presence of blood in coughed-up phlegm
- Chest pain during coughing and breathing
- Unintentional weight loss
- Fatigue
- Fever
- Night sweats
- Side or back pain

### SCREENING

If you are a current or former smoker aged 55-74, who has smoked at least a pack of cigarettes per day for at least 20 years, you are eligible for lung cancer screening, which is a program for the early detection of lung cancer. Early detection of lung cancer improves the chances of complete recovery.

**For more information about the program, please visit:**  
[www.prevenceproplice.cz](http://www.prevenceproplice.cz)

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### Screening program / early detection program:

<https://prevenceproplice.cz/>

### Patient organizations:

ČOPN - <https://www.copn.cz/cs>  
Amelie – PROdýchej - <https://www.prodychej.cz/>

### Sources of information:

Linkos

<https://www.linkos.cz/pacient-a-rodina/onkologicke-diagnozy/zhoubne-nadory-prudusek-plic-a-pohrudnice-c33-34/>

### IMPORTANT TO KNOW

Early diagnosis and timely treatment initiation are important factors with potential impact on treatment success. Therefore, try to schedule examinations as early as possible and do not delay making an appointment. Follow the doctor's instructions; if they recommend a distant facility for your examination or treatment, please respect their recommendation. Different facilities may have varying diagnostic procedures and treatment options. Your doctor will choose the best option for you.

In case the findings are confirmed through a CT scan, your doctor will refer you for bronchoscopy. Ask your doctors about the results of this examination. To determine the appropriate treatment, it is important to know the type of tumor, the cells it is composed of, and other tumor parameters such as driver mutations and signaling molecules like PD-L1.

The treatment decisions are made by a multidisciplinary team composed of relevant specialists. Based on interdisciplinary discussion, the team will propose the best treatment option and potentially suggest further investigations.

(CCC = Comprehensive Cancer Centre)



[www.hlaspacientu.cz](http://www.hlaspacientu.cz)



[www.linkos.cz](http://www.linkos.cz)



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## The journey of a lung cancer patient

The patient's journey is a simple guide on how to navigate the different steps of prevention and treatment of lung cancer.



## DIAGNOSTICS

In case the patient was not captured in an early disease detection program (screening)

GP

- GP will arrange X-ray.
- If a lung tumor is suspected, the patient is referred to a pulmonologist.
- In case of findings on CT, the patient can be directly referred to the Comprehensive Cancer Centre for further examination.

PULMONOLOGIST

- Further examination
- Pulmonary function testing
- CT scan of the lungs/mediastinum.

Priority appointment within 1\* week

A bronchoscopy or needle biopsy can be performed either at the Comprehensive Centre or by an outpatient pulmonologist

- The bronchoscopy should be performed within 2-3\* weeks from the initial detection.
- Histological or cytological examination is crucial for morphological diagnosis, determination of PD-L1 expression, and driving mutations.
- The choice of the facility performing the bronchoscopy should be carefully made based on their experience and equipment.

Comprehensive Cancer Centre

- Further examinations may include additional imaging modalities such as PET/CT and magnetic resonance imaging (MRI), as well as genetic testing.
- The multidisciplinary team will propose the best possible treatment option based on the findings from these examinations.

## TREATMENT

Surgical treatment

It is recommended to choose specialized thoracic surgical centers.  
<https://mzcr.cz/cvs-pneumoonkochirurgicke-pece/>  
Other therapies may precede or follow the surgery.

Radiotherapy

It can be applied at all stages of the disease and is usually combined with other treatment modalities.

Chemotherapy

Used in combination with immunotherapy or alone, depending on the patient's condition.

Immunotherapy

These are monoclonal antibodies that support the immune system's fight against cancer cells. It is administered either alone or in combination with chemotherapy or prior to surgical treatment.

Targeted (biological) therapy

If driver mutations are detected in cancer cells, targeted biological therapy can be chosen, which targets specific mutations in the tumor cell.

THE TIME FROM THE FIRST VISIT TO THE DOCTOR TO THE INITIATION OF TREATMENT SHOULD NOT EXCEED 42\* DAYS.

\* This deadline is indicative and for the objective reasons it may not always be possible to meet it. The course and duration of the diagnostics is individual and depends on the nature of the disease and the patient's current condition.