

## Respiratory Synchronized Radiotherapy on Lung Tumours

After colorectal, prostate and breast cancer, lung cancer is the third most common form of cancer in Germany. The Robert Koch Institute in Berlin estimates that more than 46,000 people a year contract lung cancer. In addition to surgery and chemotherapy, radiotherapy is one of the most important methods of treatment for lung carcinomas. The success of radiotherapy depends on the level of radiation applied to the tumour. This means that: the closer the tumour is targeted by the radiation, the higher the level of radiation that can be applied. At the same time, exposure to the surrounding, healthy tissue is minimized.

In order to do so, the exact position of the tumour must be assessed. However, on account of movements induced by the patient's breathing, the lung and hence the lung tumour can of course change position.

### State-of-the-Art Treatment

The MediClin Robert Janker Klinik has taken on the challenge of radiotherapy and expanded its spectrum of treatment for lung cancer. The centre for high-precision radiotherapy uses state-of-the-art radiotherapy systems, which allow movable tumours such as lung tumours and metastases to be irradiated precisely and effectively.

In Novalis®, so-called Adaptive-Gating-Technology is integrated, which makes radiotherapy adjusted to respiration possible. This system can be used individually, based on the position and size of the tumour and depending on the breathing pattern in order to reduce the target area for radiotherapy.

## **An Overview of Advantages in Adaptive-Gating-Technology:**

- The innovative technology allows for respiratory synchronized irradiation, which permits the emission of radiation only when the tumour is located in the target area.
- This makes it possible to apply a higher dosage of radiation to a precisely, pre-defined target area.
- Through higher precision, the targeted area for irradiation can be reduced.
- The radiotherapy is painless.
- The entire duration of treatment can be reduced in comparison to other procedures.

### **We treat:**

- Lung carcinomas
- Lung metastases

## **Quality through Interdisciplinary Cooperation**

In addition to the state-of-the-art medical technology as well as over 70 years of experience, the MediClin Robert Janker Klinik is distinguished through its interdisciplinary exchange between radiotherapists and the oncologists in the area. By bringing together out- and inpatient therapy, our competence in the individual treatment of lung cancer has been enhanced even further.

The network of care at our specialized Klinik for high-precision radiotherapy offers patients diagnosed with lung cancer considerable advantages in the course of the entire treatment. Accordingly, prompt, efficient coordination is made possible among the specialists. From the radiological diagnostic to the therapy stage, the treatment plan is thoroughly coordinated with regard to duration, substance and location. For our patients, this close cooperation means shorter distances and less waiting time, while avoiding redundant and unnecessary examinations.