English

Living Strong

Patient guide

to stage III lung cancer

AstraZeneca

Foreword

Dear patient,

The diagnosis of lung cancer is often totally unexpected and, after the initial moment of shock, is often followed by a flood of questions, but also by fear, bewilderment and helplessness. However, there is often little time for these feelings, as there are numerous test appointments to be attended and decisions to be made on how treatment should proceed.

In order to support you in this situation, we have designed this brochure to provide you with easy access to detailed information on the topic of stage III lung cancer. Together with your treating doctor and the healthcare team, you can use it as a basis for discussing the right therapy options for you.

In this respect, this guide can give you initial answers to your questions, such as, for example: Is immunohistochemistry testing (PD-L1 test) necessary at the time of the initial diagnosis? Which therapy options are available and is there a chance of recovery? What role does my immune system play during therapy?

In addition to the medical “explanations” you will also find a number of suggestions and practical support for managing the disease in the section at the back of the brochure. Especially at a time like this, it can sometimes be necessary to digress from familiar routes and try a fresh approach. You may also find out more about topics that you would like to learn about or to discuss with others.

We wish you all the best on your personal journey!

Your AstraZeneca team

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You can find more information at:

www.lungenkrebs.de

(german content only)

A diagnosis of lung cancer

– What's that?

> “Life is what happens to you while you're busy making other plans.”
>
> *John Lennon*

A diagnosis of lung cancer – What's that?

Lung cancer is a type of cancer that develops directly in the tissue of the lungs and can affect all elements of the respiratory organs.

How does lung cancer develop?

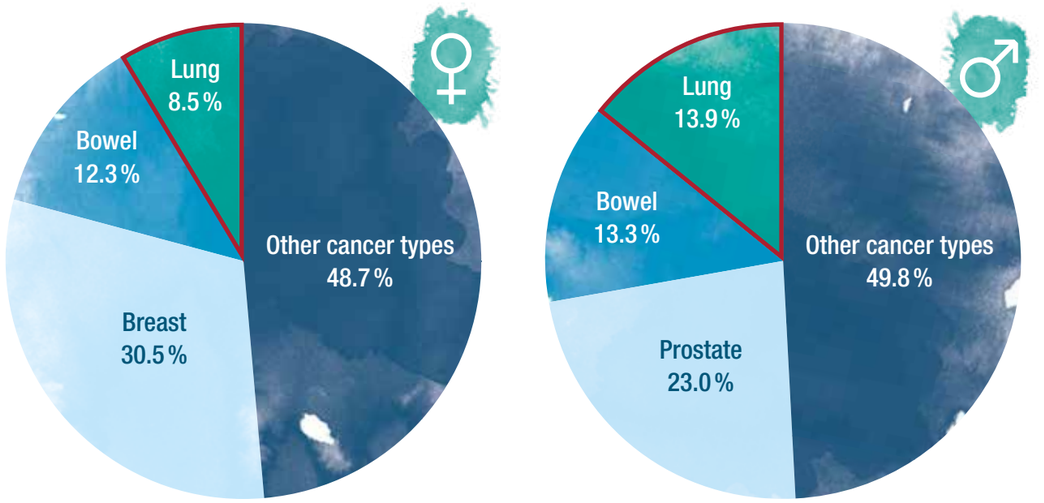
During the course of a human life, cells can become damaged by certain environmental factors or faulty cell division. These cells are frequently described as “degenerated” cells, as they no longer constitute healthy cells. In the majority of cases, however, they do not develop into a tumour, as the cells are incapable of surviving or are recognised as exogenous and destroyed by the immune system. Nevertheless, some cells escape this intrinsic defence mechanism within the body and begin to divide in an uncontrolled manner. This results in malignant tumours, also referred to as carcinoma or cancer. At the advanced stage, cancer cells have also spread via the lymph channels or the bloodstream to other regions of the body, where they have formed new tumours, so-called metastases.

What types of lung cancer are there?

A distinction is made between two main forms of lung cancer, small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). Both diseases differ primarily in terms of their histology and the associated disease progression. Small cell lung cancer grows more rapidly and is characterised by more rapid formation of metastases. The non-small cell form is more common (85-90%) and usually exhibits slower disease progression.[1]

How common is lung cancer in humans?

Lung cancer is not a rare disease. In Germany, lung cancer is the third most common cancer in women, and the second most common in men. In the year 2018 alone, 22,000 new diagnoses of the disease were predicted in women, and 33,700 in men.[2] The risk of developing lung cancer increases with age. Most lung cancer cases are diagnosed when patients are 65 years old.[1]



Graphic adapted from RKI (Robert Koch-Institut [Robert Koch Institute]) (2014)[3], Krebsneuerkrankungen in Deutschland [New cancer cases in Germany] (2014)

A diagnosis of lung cancer – What's that?

Are there risk factors for developing lung cancer?

The precise cause of lung cancer is still not fully known. However, there are certain risk factors that favour the development of lung cancer. By far the most significant and definitive risk factor is smoking. Approximately 90% of male and 60% of female lung cancer patients are or were smokers.[3]

Risk factors such as:

- Smoking/passive smoking
- Fine dust
- Noxious substances in the workplace
- Ionising radiation

What are the symptoms of lung cancer?

In the early stages of lung cancer, there are often no symptoms at all. The reason for this is that the lung itself is incapable of perceiving pain. Pain and other symptoms usually only occur when the disease is at a significantly advanced stage and other organs are also involved. Patients who find themselves in the later stages of lung cancer report multiple symptoms. These can be caused by the tumours in the lungs, the weakening and stress of the body, or metastases.

Tumour-related symptoms such as:

- Persistent cough
- Shortness of breath
- Wheezing
- Chest pain
- Coughing up blood
- Hoarseness

General symptoms such as:

- Long-term fatigue
- Sudden weight loss
- Loss of appetite

Metastasis-related symptoms such as:

- Headaches
- Dizziness
- Impaired balance
- Bone pain

How is lung cancer diagnosed?

A significant number of investigative methods are available for diagnosing lung cancer. The primary aim of the diagnosis is to determine the precise location and the size of the tumour and its metastases. Laboratory tests can further help your doctor to tailor the lung cancer treatment to your clinical condition.

X-ray

An X-ray image of the chest can be used to detect tumours measuring 0.5 cm or more in size. However, smaller tumours may remain undetected by this method. It is not possible to exclude lung cancer by means of this method.

Computerised tomography (CT)/magnetic resonance imaging (MRI)/positron emission tomography-CT (PET-CT)

CT or MRI can be used to provide layer-by-layer images of the body. The precise size and location of the tumour as well as any metastases can be determined in this way. In individual cases, a PET-CT may also be necessary for making a diagnosis. This is a very sensitive method, in which potential metastases are labelled and traced with small quantities of radioactive substances.

Bronchoscopy

A bronchoscopy involves feeding a thin tube with a camera at the end via the airways into the lungs of a patient who has usually been given a general anaesthetic. It is also possible to take tissue samples using specific tools for confirming the diagnosis.

Tissue and blood tests

Tissue and/or blood samples can be analysed in a laboratory in order to determine the exact type of tumour and to tailor the treatment to the type of cancer. In order to investigate whether immunotherapy is suitable, so-called biomarkers, which also include the immune checkpoint protein PD-L1 (programmed death ligand-1), are identified on the tumour cells. The status can easily be determined using the tissue sample from the initial diagnosis. This enables the healthcare team to choose the best possible treatment for you.

Stage III lung cancer

– Is there a cure?

> “Only he who knows his destination finds the way.”
>
> *Laozi*

What are the stages of lung cancer?

When you were given your lung cancer diagnosis, you may also have been told the stage of the disease. The treatment options available depend on the stage of the disease and the extent to which the tumour has progressed at the time of the initial diagnosis. Determining the stage of the disease can, therefore, help your healthcare team to decide on the appropriate treatment.

Stage I lung cancer

Localised tumour with lymph nodes not affected and with no distant metastases. At this stage, the tumour is usually surgically removed.

Stage II lung cancer

The tumour is still small enough to allow it to be surgically removed. However, if the lymph nodes have already been affected, additional treatment (radiation, chemotherapy) may be required.

Stage III lung cancer

Locally advanced tumour, which has already affected the lymph nodes or has exceeded a certain size. At stage III A, a surgery with subsequent radiation/chemotherapy may still be an option. Conversely, at stage III B, surgery is not always possible and does not generally improve the therapeutic outcome. Nevertheless, subsequent radiotherapy and immunotherapy may halt the progress of the disease.

Stage IV lung cancer

Distant metastases are present in the body. In most cases, at this stage only treatment with medication (chemotherapy, targeted treatment, immunotherapy) can be considered.

What are the goals of a course of treatment?

In an ideal scenario, the goal of all medical treatment is the patient's recovery. In the case of lung cancer, this would mean the complete elimination of all cancer cells.

However, if the lung cancer is already too far advanced, recovery is no longer achievable. In this case, a course of treatment is selected that is designed to halt the further proliferation of cancer cells and the growth of the tumour for as long as possible, while simultaneously guaranteeing the patient the best possible quality of life. In addition, the goal of the therapy is that the patient experiences as little discomfort as possible as the result of the treatment. Extending life expectancy and maintaining quality of life are therefore central to this form of treatment.

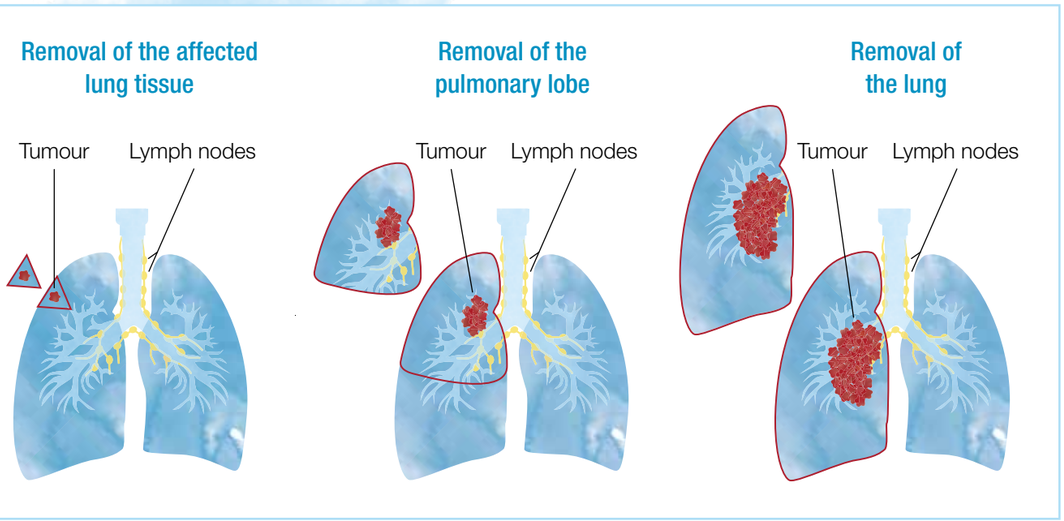
Is there any chance of recovering from stage III lung cancer?

In stage III, the lung cancer has advanced to such an extent that surgery is frequently no longer useful, as the tumour has grown too large. During stage III A, surgery may still result in the complete removal of the tumour tissue. Recovery is possible if this is the case. However, as in stage III B, if it is no longer possible to remove the tumour, full recovery is only rarely achievable. Freedom from symptoms and the best possible quality of life are then the priority. New treatment options, such as immunotherapy, are geared towards the targeted destruction of cancer cells. This means that, even at this late stage, hope still remains that a patient's life expectancy can be significantly improved. Research projects are also constantly focusing on further improving the chances of patient recovery.

What treatment options are available in stage III?

Surgery

If the **lung cancer is operable,** the goal of the surgery is to remove the tumour completely, if possible. Depending on the size and extent to which the tumour has spread, only the affected lung tissue, one pulmonary lobe or a full lung may be removed.



What happens if the tumour is inoperable?

At stage III, surgical removal of the tumour is no longer possible in many cases, for example because it can be adherent to important blood vessels. This is referred to as inoperable lung cancer.

Radiotherapy (radiation therapy)

The aim of radiation therapy is to damage tumour cells in the lungs in a targeted way using high-energy radiation. The radiation either kills the cancer cells directly or destroys their genetic material, so that they are no longer able to proliferate. However, radiation can also damage the surrounding healthy tissue. Consequently, before the start of the treatment, the location and size of the tumour is precisely ascertained in order to determine the radiation dose and the area to be irradiated.

Chemotherapy

Tumour cells are primarily characterised by their rapid and uncontrolled division. This is the focal point for chemotherapy. It involves the use of medication that inhibits cell division. Consequently, the medication specifically tackles the rapidly dividing cancer cells. This form of therapy enables the inhibition of cancer cell growth throughout the body and not just locally in the tumour. Even undiscovered metastases can be tackled at an early stage using this method.

Unfortunately, there are also other cells in the body that are noted for their rapid proliferation, for example, the cells of the hair roots and mucous membranes, and also blood cells generated in the bone marrow. As these cells are also negatively impacted by chemotherapy, this form of treatment can frequently induce severe side effects.

Combined radiochemotherapy

In stage III lung cancer, radiation therapy is usually combined directly with chemotherapy. This is referred to as radiochemotherapy. This form of treatment has various therapeutic goals, depending on how far the disease has progressed.

Operable lung cancer

If surgery is still an option in the advanced stages of the disease, radiochemotherapy can be performed before or after surgery.

- Radiochemotherapy prior to surgery can, in certain circumstances, reduce the size and extent of the tumour, thereby making it easier to perform surgery.
- Following surgery, radiochemotherapy can be used to destroy tumour cells, which it was not possible to remove during the surgery.

Inoperable lung cancer

Radiochemotherapy is the preferred treatment if surgery is not suitable in stage III disease. The goal of combined radiation and chemotherapy is to halt the progress of the disease insofar as possible or to drive back the cancer in the first instance. Thanks to new treatment options, such as immunotherapy, it is possible to treat patients outside the confines of radiochemotherapy. This can help to improve patient life expectancy considerably.

Radiochemotherapy – What's next?

For a long time, following radiochemotherapy, there was only the option of regular check-ups so that further medical action could be undertaken in response to a relapse. However, in recent "years" new treatment methods have been developed that can be utilised directly after radiochemotherapy. The direct use of biological drugs after radiochemotherapy makes it possible to delay disease progression, and thereby improve patients' life expectancy. In this respect, cancer immunotherapy is the first treatment option demonstrably capable of causing a meaningful delay in disease progression following radiochemotherapy.

Overview of therapy options

Stage III lung cancer

Inoperable

Radiochemo-therapy

- Inhibits the growth of cancer cells throughout the body
- Reduces the size and extent of the tumour

Cancer immuno-therapy

- Delays the progress of the disease
- Extends life expectancy

Operable

Radiochemo-therapy

- Inhibits the growth of cancer cells throughout the body
- Reduces the size and extent of the tumour (can facilitate subsequent surgery)

Surgery

- Possible complete removal of the tumour (up to replacement of the lung)
- May lead to healing

Radiochemo-therapy

- Destroys the residual tumour tissue

Surgery

- Possible complete removal of the tumour (up to replacement of the lung)
- May lead to healing

Radiochemo-therapy

- Destroys the residual tumour tissue

Cancer immunotherapy

– What role does my immune system play?

> “Miracles are not contrary to nature, but only contrary to what we know about nature.”
>
> *St. Augustine*

Cancer immunotherapy – What role does my immune system play?

The role of the immune system

The immune system’s job is to protect the human body against pathogens, such as bacteria or viruses. However, even our body’s own cells can, under certain circumstances, represent a threat to our health. Cells with damaged hereditary information, so-called mutations, must be destroyed in order to prevent the occurrence of cancer. A natural mechanism ensures that these cells are recognised as being foreign and are destroyed. However, if degenerated cells evade detection by the immune system, they can proliferate in an uncontrolled manner, causing cancer.

The immune system is our bodies’ biological defence mechanism.

Immune cells are the main players in repelling pathogens and detecting degenerated cells that can constitute a health threat.

Some immune cells are capable of creating antibodies. Antibodies are special proteins, capable of binding to exogenous surface structures such as those of intruders or degenerated cells, e.g. tumour cells. They can signal to the immune cells where they need to attack.

How can cancer cells remain undetected?

Cancer cells can adopt special characteristics in order to evade an immune system attack. For example, they can present certain protein molecules on their surfaces, such as the immune checkpoint PD-L1 (programmed death ligand-1), which inhibit the activity of immune cells. In a case such as this, the so-called cancer immunotherapy can be the therapy of choice.

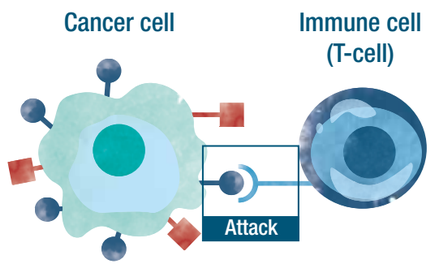
Cancer immunotherapy – What's that?

The goal of cancer immunotherapy is to support your body's own immune system to fight cancer.

Drugs used in cancer immunotherapy are so-called biologicals. These are modelled on the body's own antibodies and are able to trigger certain effects in the aforementioned proteins (e.g. PD-L1).

In cancer immunotherapy, they enable the immune cells to recognise cancer cells more easily. Consequently, the immune system is again able to fight the cancer cells. In other words, cancer immunotherapy, in contrast to chemotherapy, does not have a directly harmful effect on the body's own cells. Hence, cancer immunotherapy offers a new, progressive treatment option in inoperable non-small cell lung carcinoma (stage III).

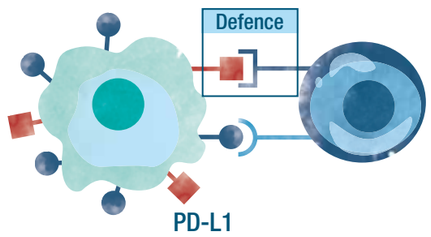
Cancer immunotherapy supports the body's own immune system in its struggle against cancer.



Mechanism of action of biological drugs

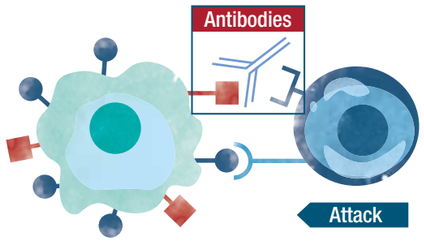
Immune cells can recognise cancer cells due to their modified surface.

Attacking and destroying the cancer cell



However, some cancer cells have developed strategies to repel an attack by generating increased quantities of the immune checkpoint protein PD-L1.

The cancer cell can proliferate in an uncontrolled manner and spread throughout the body



Biological drugs block the immune checkpoints PD-L1 which are formed in increased numbers on the tumour cells after radiation. This can prevent the suppression of the immune response.

Attacking and destroying the cancer cell

When can cancer immunotherapy be used in stage III?

Cancer immunotherapy is usually initiated in stage III after radiochemotherapy. The majority of the biological drugs can only be used after renewed disease progression. In recent years, a new immunotherapeutic treatment option has been developed that can be initiated immediately following radiochemotherapy. This earlier administration can extend the time to disease progression and potentially prolong patients' life expectancy.

What happens during cancer immunotherapy?

In general, cancer immunotherapy is usually administered in the form of an intravenous infusion on an outpatient basis over a 30-90 minute period at a medical practice or in a hospital. There are usually two- to three-week intervals between the infusions.

Which patients are not suitable candidates for cancer immunotherapy?

Some individuals, even before cancer immunotherapy, are already suffering from an immune system malfunction. These include, for example, patients with autoimmune diseases, whose overactive immune system leads to a chronic inflammation. Cancer immunotherapy in these patients may be problematic, as this treatment activates the immune system to an even greater extent. Should you be suffering from an immune system disorder, tell your doctor before undergoing cancer immunotherapy.

What are the possible side effects?

Contrary to chemotherapy, cancer immunotherapy does not damage the body's own cells directly, making it significantly easier to tolerate. However, as the goal of this treatment is to increase immune system activity, it is possible that this can cause over-activation. In this case, immune cells can also attack the body's healthy cells, which can result in inflammation of certain organs or tissues. This is referred to as an immune-mediated side effect.

It necessitates urgent medical intervention in order to prevent damage to organs and tissues.

If you undergo cancer immunotherapy, it is important that you document your symptoms, and discuss new symptoms with your doctor immediately, so that the latter can react promptly, taking appropriate medical action.

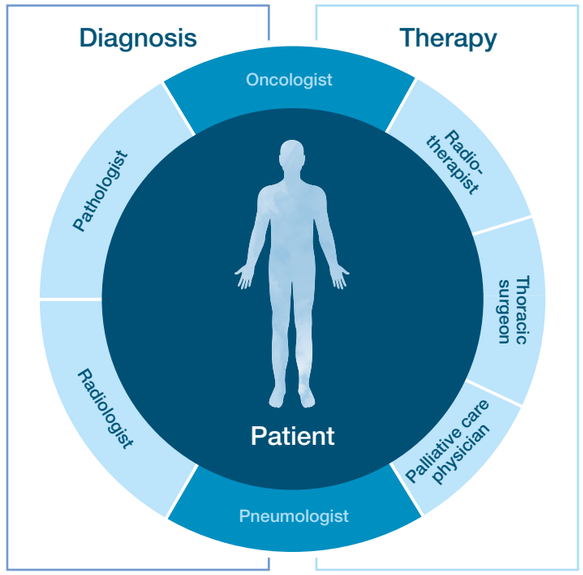
Tumour boards

– Which doctors will decide on my treatment?

“The shortest words, namely “yes” and “no”, require the most thought.”

Pythagoras of Samos

Tumour boards – Which doctors will decide on my treatment?



A **tumor board** is composed of doctors from various specialist areas coming together to develop the optimum treatment plan for your needs.

What is a tumour board?

Physicians from various specialist areas are involved in providing cancer treatment. An intensive discussion among the doctors of all the findings can help to determine the optimum therapy for your illness. In order to facilitate a direct exchange of information, the doctors frequently gather in the form of so-called tumour boards.

During the course of your treatment, you will be under the care of doctors from various specialist areas, but in most cases you will have a central contact person. This is usually your treating oncologist or pneumologist. He or she will supervise you throughout your treatment and will be available to address any questions or issues you may have.

Whilst the radiologist can assist with imaging procedures during cancer diagnosis, the radiotherapist initiates radiation treatment during cancer treatment. The pathologist plays a significant role during diagnosis, as he or she is able to distinguish the nature of your tumour using microscopic images. A surgeon is best placed to appraise whether surgery is an option as part of the cancer treatment in your case. The palliative care physician, on the other hand, is particularly familiar with the treatment of pain and knows how the discomfort associated with illness can be alleviated. Finally, the provision of advice and care by psycho-oncologists is an important addendum to the cancer treatment itself.

Where will my treatment be provided?

Your treatment will be provided, depending on the type of therapy, at the practice of your attending physician or at a specialist hospital. For example, radiochemotherapy can be administered outside the hospital, whereas immunotherapy is undertaken under the supervision of the treating oncologist or pneumologist. However, after the completion of your treatment, you can also avail of rehabilitation services which are then provided at specialist rehabilitation clinics.

Living with lung cancer

– What happens next?

> “As for the future, your task is not to foresee it, but to enable it.”
>
> *Antoine de Saint-Exupéry*

Living with lung cancer – What happens next?

What is aftercare?

Aftercare comprises regular check-up appointments and individual consultations with the attending physician. Cancer therapy may have been completed, but in patients who are not cancer-free, freedom from symptoms and maintaining the best possible quality of life is the priority.

Aftercare goals:

- Prompt detection of a relapse of the disease
- Detecting and treating possible accompanying diseases
- Physical and mental support

How important is aftercare?

Aftercare is very important for monitoring the status of a patient’s health. Only thus, a relapse or renewed progression of your disease can be quickly detected and treated. In addition, the debilitating cancer therapies can lead to side effects or secondary diseases, which can be diagnosed at an early stage by regular assessments. For example, radiotherapy of the lungs can result in pulmonary inflammation (pneumonitis) triggered by the radiation.

An aftercare plan, individually tailored to the stage of the disease and the therapy, is designed to support both doctor and patient.

Who provides the aftercare?

Under normal circumstances, aftercare is provided on an outpatient basis by doctors in private practice. Nevertheless, the goal is an exchange of information among all the specialists involved.

Possible assessments:

- Questioning on current medical history
- Physical examination
- Blood tests
- Imaging procedures
- Lung function tests

The aftercare plan

Aftercare takes place over the course of at least five years. The frequency and extent of the assessment is individually determined based on the condition of the patient following the therapy.

Naturally, patients who have the option of further treatment have shorter aftercare intervals.

4–6 weeks after therapy	Initial presentation
1 year after therapy	Check-ups after 3, 6 and 12 months
2 years after therapy	Check-ups every 6 months
3–5 years after therapy	Annual check-up

In the event you experience discomfort, do not hesitate, irrespective of the scheduled appointment, to make an earlier appointment.

Rehabilitation – Yes or no?

Following debilitating cancer treatment, lung cancer patients often feel drained and exhausted. Not merely the physical but also the emotional stress is a contributory factor in this respect. Returning to everyday life is regarded by many patients as an obstacle that must be overcome. Consequently, rehabilitation, or rehab for short, is often recommended to patients directly after their treatment. Rehab is undertaken either on an inpatient or outpatient basis and incorporates a range of services designed to facilitate a patient's return to everyday life.

An overview of the most common rehab services:

- Psychological counselling and care
- Physical training/physiotherapy
- Smoking cessation
- Respiratory therapy
- Nutritional advice

How do I apply for rehab services?

The costs of rehab are normally covered by your health insurance provider or the statutory pension insurance scheme. In the majority of cases, three steps are involved when applying for rehab:

1. **The consultation with the doctor:** The doctor subsequently produces a diagnostic findings report detailing the need for rehabilitation.

2. **The application:** The application for the rehab is made with the assistance of the attending physician or the hospital's social services department and contains the therapy goals, among other things.

3. **The decision:** The letter from the funding organisation (Deutsche Rentenversicherung [German statutory pension insurance scheme], health insurance provider) contains information on the institution and the duration of the approved treatment and is usually sent to you by post.

Back to work

Will I be able to return to work?

Following the cancer therapy or the rehab, many patients ask themselves whether they will be able to resume working life. This question can only be answered on an individual basis and, among other things, depends on the outcome of the therapy. It is therefore important to share your reflections with your attending physician, so that you can make a decision together.

The following options, among others, are open to you:

Progressive reintegration

Gradually increasing working hours over several weeks following a reintegration schedule drawn up jointly with your doctor and your manager.

Retraining or in-company redeployment

If a return to your former position is no longer possible due to your physical limitations, you can avail of professional rehabilitation services, such as retraining courses.

Reduced earning capacity pension

If a return to working life is no longer an option, you will probably be advised to apply to your pension insurance provider for a reduced earning capacity pension.

Sport and exercise

Regular exercise after and even during your treatment can help to improve your physical as well as emotional wellbeing. However, physical activity should be individually tailored to your physical condition. Even a walk in the fresh air can help improve your quality of life and strengthen your cardiovascular system.

- Strengthening the cardiovascular system
- Strengthening the lungs and the respiratory muscles
- Building up muscles and improving physical stability
- Releasing happiness hormones and relieving stress
- Becoming more capable and independent again in everyday life

How about hiking or Nordic walking when the weather is good? Switch off and enjoy nature!

Or maybe a bike ride, even combined with a family picnic?
Exercise in the fresh air is not just a tonic for your body but also for your soul.

Or maybe you would prefer to relax in the warm when the weather is bad?
Yoga is one idea to consider here. A great combination of relaxation, stretching and revitalisation.

Breathing exercises as an integral part of everyday life

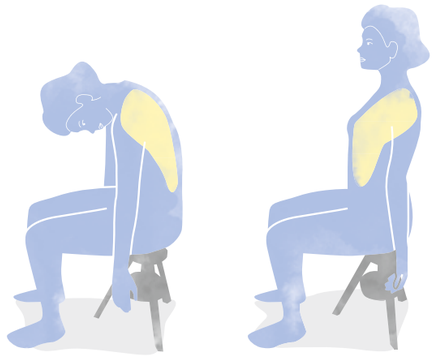
As a lung cancer patient, strengthening your lungs is of particular importance to you, as, due to your tumour or the surgical removal of lung tissue, you are usually left with reduced breathing capacity. The associated oxygen deficit can lead to increased fatigue and exhaustion.

In addition, many patients develop shallow breathing as a result of their illness. This means that they avoid breathing deeply, because it is painful.

However, good ventilation of the lungs is important, so that mucus can be coughed up and for reducing the risk of pneumonia.

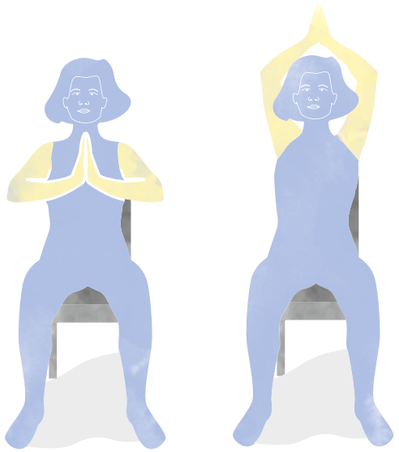
Breathing exercises help you to strengthen and build up your lungs. Breathing exercises do not merely make breathing easier, they also train your chest muscles. This enables you to increase your mobility and make it easier for you to manage everyday movements again, such as bending and lifting.

Exercise 1



- Firstly, sit upright on a chair.
- Roll your upper body forwards and allow your arms to hang down loosely beside your body.
- Remaining in this position, take 2–3 breaths.
- Now, return your upper body to an upright position and draw your shoulders back. Also in this position, take 2–3 breaths.

Exercise 2



- Sit upright on a chair.
- Now, press your palms together in front of your chest and breathe evenly.
- Then, raise your arms above your head, keeping your palms pressed together, and hold this position for 3–5 breaths.
- Then, lower your arms and relax.

How can I process my illness emotionally?

The diagnosis of cancer is a shock initially, which has to be processed. Each patient finds a way of coming to terms with the disease.

Support of family and friends

Firstly, take the time you need before telling your relatives and friends. Some patients find the direct contribution of relatives helpful, while others prefer to come to terms themselves with the diagnosis and the illness first. Simply do what you find most helpful. Be aware that cancer is not a taboo subject under any circumstances. Discussion with family and your circle of friends can help you to cope emotionally with your illness. Talk about your condition and your feelings, as being open can also help your relatives to break down any existing barriers and to be there for you.

Psycho-oncology support

Some psychotherapists are specialised in the needs of cancer patients, this is referred to as psycho-oncology. If you need to talk to someone outside your family and circle of friends, do not hesitate to avail of this psychotherapeutic assistance. Discussions with an outside person allow you to talk openly about your fears, without the need to be careful of putting your counterpart under stress.

Similarly, a psychotherapist can help you in your dealings with relatives. Conversely, your relatives can also avail of this psychotherapeutic support, to be better able to mentally process your illness.

Addresses, etc.

– Where can I access help and support?

“If the advice is good, it does not matter who gave it.”

Thomas Fuller

Miscellaneous

www.lungenkrebs.de

Deutsche Krebshilfe [German Cancer Aid]
Buschstr. 32
53113 Bonn
Tel: 0228 – 72 99 00
Fax: 0228 – 72 99 011
Email: deutsche@krebshilfe.de
www.krebshilfe.de

Krebsinformationsdienst [Cancer Information Service] (KID) at the Deutsches Krebsforschungszentrum [German Cancer Research Centre] (DKFZ)
Im Neuenheimer Feld 280
69120 Heidelberg
Cancer-related queries:
Tel: 0800 – 420 30 40
Email: krebsinformationsdienst@dkfz.de
www.krebsinformationsdienst.de

Deutsche Krebsgesellschaft e.V. [German Cancer Society]
Kuno-Fischer-Str. 8
14057 Berlin
Tel: 030 – 32 29 32 90
Fax: 030 – 32 29 32 966
Email: service@krebsgesellschaft.de
www.krebsgesellschaft.de

Gesellschaft für Biologische Krebsabwehr e.V. [Society for Biological Cancer Resistance]
Voßstr. 3
69115 Heidelberg
Tel: 06221 – 13 80 20
Fax: 06221 – 13 80 220
Email: information@biokrebs.de
www.biokrebs.de

Deutsche Fatigue Gesellschaft e.V. [German Fatigue Society] (DFaG)
Maria-Hilf-Str. 15
50677 Köln
Tel: 0221 – 931 15 96
Fax: 0221 – 931 15 97
Email: info@deutsche-fatigue-gesellschaft.de
www.deutsche-fatigue-gesellschaft.de

Kompetenznetz Komplementärmedizin in der Onkologie [Complementary Oncological Medicine Competence Network]
Prof.-Ernst-Nathan-Str. 1
90419 Nürnberg
Tel: 0911 – 398 30 63
www.kompetenznetz-kokon.de

Self-help

Bundesverband Selbsthilfe Lungenkrebs e. V.
[Federal Self-Help Association for Lung Cancer]
Rotenkruger Weg 78
12305 Berlin
Tel: 0160 – 906 717 79
www.bundesverband-selbsthilfe-lungenkrebs.de
(you can find a list of all regional lung cancer self-help groups here)

NAKOS
Nationale Kontakt- und Informationsstelle zur Anregung und Unterstützung von Selbsthilfegruppen [National Contact and Information Point for Motivating and Supporting Self-help Groups]
Otto-Suhr-Allee 115
10585 Berlin-Charlottenburg
Tel: 030 – 310 189 60
Fax: 030 – 310 189 70
Email: selbsthilfe@nakos.de
www.nakos.de

Deutsche SauerstoffLiga LOT e. V.
[German Oxygen League]
Frühlingstr. 1
83435 Bad Reichenhall
Tel: 08651 – 76 21 48
Fax: 08651 – 76 21 49
Email: info@sauerstoffliga.de
www.sauerstoffliga.de

Deutsche PatientenLiga Atemwegserkrankungen - DPLA e. V.
[German Patients League for Respiratory Diseases]
Adnet-Str. 14
55276 Oppenheim
Tel: 06133 – 35 43
Fax: 06133 – 573 83 27
Email: info@pat-liga.de
www.pat-liga.de

Pain

Deutsche Schmerzliga e. V. [German Pain League]
Postfach [P.O. Box] 74 01 23
60570 Frankfurt am Main
Tel: 069 – 138 280 22
Email: info@schmerzliga.de
www.schmerzliga.de

Forum Schmerz im Deutschen Grünen Kreuz e. V.
[German Green Cross Pain Forum]
DEUTSCHES GRÜNES KREUZ e. V.
[GERMAN GREEN CROSS]
Biegenstr. 6
35037 Marburg
Tel: 06421 – 29 30
Fax: 06421 – 29 31 87
Email: dgk@dgk.de
www.dgk.de

Sport and Nutrition

Deutscher Schützenbund e. V.
[German Shooting Sport and Archery Federation]
Lahnstr. 120
65195 Wiesbaden
Tel: 0611 – 46 80 70
Fax: 0611 – 46 80 749
Email: info@dsb.de
www.dsb.de
(Addresses of the regional sports associations as points of contact for sport groups after cancer)

Geschäftsstelle AG Lungensport in Deutschland e. V. [Offices of the Association for Lung Sport in Germany]
Raiffeisenstr. 38
33175 Bad Lippspringe
Tel: 05252 – 937 06 03
Fax: 05252 – 937 06 04
Email: lungensport@atemwegsliga.de
www.lungensport.org

Deutsche Gesellschaft für Ernährung e. V.
[German Nutrition Society]
Godesberger Allee 18
53175 Bonn
Tel: 0228 – 377 66 00
Fax: 0228 – 377 68 00
Email: webmaster@dge.de
www.dge.de
(including lists of nutritional advisers throughout Germany)

Queries regarding financial assistance and social services

Deutsche Rentenversicherung Bund
[German Statutory Pension Insurance Scheme]
10704 Berlin
Tel: 0800 – 100 04 80 70
www.deutsche-rentenversicherung.de

Hospices and palliative medicine

Deutsche Hospiz- und Palliativ Stiftung
[German Hospice and Palliative Care Foundation]
Aachener Str. 5
10713 Berlin
Tel: 030 – 820 07 58 16
Fax: 030 – 820 07 58 13
Email: info@dhp-stiftung.de
www.dhp-stiftung.de

Deutsche Gesellschaft für Palliativmedizin e. V.
[German Association for Palliative Medicine]
Aachener Str. 5
10713 Berlin
Tel: 030 – 30 10 10 00
Fax: 030 – 30 10 10 016
Email: dgp@dgpalliativmedizin.de
www.dgpalliativmedizin.de

A to Z

– What terms should I know?

> “All future knowledge is based on prior intuition.”
>
> *Alexander von Humboldt*

Antibodies
Proteins capable of binding to exogenous surface structures such as those of intruders or degenerated cells

Biologicals/biological drugs
Biologically manufactured drugs modelled on the body’s own antibodies

CT – Computed tomography
Layer-by-layer imaging of the body using radiation

Degenerated cells
Cells that have been damaged by certain environmental influences or faulty cell division and no longer constitute healthy cells

Histology
Examination of biological tissue under a microscope, for example to characterise cancer types

Immune-mediated side effects
Side effects that can occur due to over-activation or suppression of the immune system

Intravenous infusion
Infusion administered into a vein in the body via a cannula

Cancer immunotherapy
Therapy form in which the cancer is not directly attacked but rather the body’s own immune system activated in the fight against cancer

Curative treatment
Treatment with the goal of complete patient healing

Stage III lung cancer
Lung cancer that is at a locally advanced stage and in which cancer cells have already been detected in lymph nodes in the vicinity of the tumour

Bronchoscopy
Diagnostic procedure in which a camera is fed into the lungs of a patient via the airways using a thin tube

MRI – magnetic resonance imaging
Layer-by-layer imaging of the body using magnetic fields

NSCLC
Non-small-cell lung cancer

Palliative care
Goal of comprehensive symptom control in order to provide the patient with a life as free from symptoms as possible

PD-L1
Immune checkpoints are proteins that can be present on the surface of the body’s own and unhealthy cells (programmed death ligand-1); cancer cells use these proteins to bypass the immune system

PET-CT - positron emission tomography-CT
Computer tomography performed while radioactively-labelled substances are administered allowing the imaging of tumour cells thereby making them easier to detect

Psycho-oncology
Psychotherapy specifically tailored to the needs of cancer patients

Radiochemotherapy
Combination of radiotherapy and chemotherapy for the treatment of cancer

SCLC
Small cell lung carcinoma

Tumour board
Direct and individual consultation between physicians from various specialist areas in order to decide on the optimal treatment of cancer

AstraZeneca GmbH – Tinsdaler Weg 183 – 22880 Wedel
www.astrazeneca.de – www.lungenkrebs.de

1. European Society of Medical Oncology (ESMO). Non-small cell lung carcinoma (NSCLC) An ESMO patient guide. Available at: https://www.esmo.org/content/download/123909/2350201/file/DE-Nicht-Kleinzelliges-Bronchialkarzinom-(NSCLC)-Patientenleitlinie.pdf. Last accessed: August 2018.
2. Deutsches Krebsforschungszentrum (DKFZ) Krebsinformationsdienst [German Cancer Research Centre Cancer Information Service]. Lung cancer. Available at: https://www.krebsinformationsdienst.de/tumorarten/lungenkrebs/faq.php. Last accessed: August 2018.
3. Cancer in Germany for 2013/2014. 11th edition. Robert Koch-Institut (publ.) and the Gesellschaft der epidemiologischen Krebsregister in Deutschland e.V. (publ.) [Society of German Epidemiological Cancer Registries]. Berlin, 2017.

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