



NATIONAL CENTER
FOR TUMOR DISEASES
HEIDELBERG

supported by
German Cancer Research Center (DKFZ)
Heidelberg University Medical Center
Hospital for Thoracic Diseases
German Cancer Aid

www.nct-heidelberg.de/en

YOUR GUIDE



HEIDELBERG
UNIVERSITY
HOSPITAL

dkfz.

GERMAN
CANCER RESEARCH CENTER
IN THE HELMHOLTZ ASSOCIATION

Dear Ms./Mr.,

We would like to extend a warm welcome to you as a patient at the NCT Heidelberg, where an expert interdisciplinary treatment team of physicians and researchers is here to be of assistance to you. At both of our day care units, we have experienced general nurses as well as nurses specialized in oncology or who have additional qualifications in palliative care, naturopathic care and pain management as well as wound, stomata, and port experts.

Working closely with your physicians as well as the consulting services, we will support you at every step of your treatment.

With this guide, we would like to ensure you are well informed and well advised during your cancer therapy. In addition, you can use this folder to collect and file your documents. To learn more about the NCT Heidelberg, go to www.nct-heidelberg.de.

*We are there for you!
Your treatment team of physicians and researchers
at the NCT Heidelberg*

Distributed by:

The **NCT patient-handbook** in English or German
can be downloaded here:
www.nct-heidelberg.de/patient-handbook





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Watch the explanatory movie:

**NCT Heidelberg ...
in simple terms**

www.nct-heidelberg.de/film

NATIONAL CENTER FOR TUMOR DISEASES (NCT) HEIDELBERG

The National Center for Tumor Diseases (NCT) Heidelberg is a joint institution of the German Cancer Research Center, Heidelberg University Hospital (UKHD) and German Cancer Aid. The NCT's goal is to link promising approaches from cancer research with patient care from diagnosis to treatment, aftercare and prevention. The interdisciplinary tumor outpatient clinic is the central element of the NCT. Here, the patients benefit from an individual treatment plan prepared in a timely manner in interdisciplinary expert rounds, so-called tumor boards. Participation in clinical studies provides access to innovative therapies. The NCT thereby acts as a pioneering platform that translates novel research results from the laboratory into clinical practice. The NCT Heidelberg also cooperates with self-help groups and supports them in their work. In 2015, the NCT Heidelberg established a partner location in Dresden.

Address:

**National Center for
Tumor Diseases (NCT)**
Im Neuenheimer Feld 460
69120 Heidelberg
+49 (0)6221 56-4801
www.nct-heidelberg.de

On the ground floor, you will find:

Reception / information:

☎ +49 (0)6221 56-4801

Day care unit 1:

☎ +49 (0)6221 56-6469

Coordination office A (Medical Oncology):

☎ +49 (0)6221 56-8819

Coordination office B

(Radiation Therapy Outpatient Clinic):

☎ +49 (0)6221 56-7611

On the 1st floor, you will find:

Day care unit 2:

☎ +49 (0)6221 56-7348

Coordination office C (Dermatology):

☎ +49 (0)6221 56-8562

Coordination office C (Neuro-oncology):

☎ +49 (0)6221 56-6086

Coordination office D (Gynecology):

☎ +49 (0)6221 56-7985

Cafeteria

Opening hours: 08:00 a.m. – 4:00 p.m.

Patients who receive semi-outpatient care receive a coupon for meals upon registration which they can redeem at the cafeteria of the NCT Heidelberg on their day of therapy.

On the 2nd floor, you will find:

Conference rooms in which the tumor boards hold meetings as well as our exercise room. There are also administrative offices on the 2nd and 3rd floors.

Directions and parking

The NCT Heidelberg is located on the Neuenheimer Feld campus directly next to the clinics of the Heidelberg University Hospital. The **RNV bus lines 31/32** stop at **bus stop "Studentenwohnheim"**, which is directly in front of the NCT Heidelberg.

The individual buildings are connected via an underground corridor at level 99. On the penultimate page of this guide you will find a **map of the site**.

Parking on the hospital grounds is subject to a fee. The first 30 minutes are free of charge, then it costs €1.40/hour, and the maximum daily charge is €7 per day.

If you regularly have appointments at the NCT, you can purchase discounted books of 5 or 10 tickets for the hospital parking spaces on the Neuenheimer Feld campus. You may purchase these at the parking and information center (LIZ) Im Neuenheimer Feld 165, located between the medical clinic and the parking lot of the hospital. Book of 5 tickets: €30, book of 10 tickets: €60

Long-term patients and their families can also apply for paid access to the parking lots. For more information, please contact the parking and information center.

If you arrive for your treatment at the NCT Heidelberg by car and are in possession of German handicap ID with the category "G" or "aG", free parking is available on the hospital grounds.

If you meet these conditions, please proceed as follows:

1. Take a parking ticket at the entrance of the parking lot
2. Have your German handicap ID ready when exiting the parking lot, press the silver "Info" button at the barrier and give the number of your card when requested.

The **social service** of the NCT Heidelberg **will answer any questions** about travel expenses (for example, for taxi rides) by health insurance providers:

☎ +49 (0)6221 56-4477

✉ sozialarbeit@nct-heidelberg.de

Our day care units

Appointments

Appointments at the day care units are given based on factors such as the number of patients, the duration of therapy and other organizational processes. We always try to consider your appointment requests, but we cannot always guarantee them. If you need to postpone or cancel your appointment, we ask you to contact patient registration well in advance. We strive to keep your length of stay in the day care units as short and effective as possible. New findings or symptoms and other unforeseen situations can lead to extended waiting times. We ask you to include this in your plans for your date of therapy.

Accompanying persons

You may bring an accompanying person to your appointment. Due to increased infection risk for patients, persons under 16 years of age are not allowed access to the day clinic.

Cellular phones

As a general rule, the use of mobile phones is permitted at the day care units. We ask you, however, out of respect for other patients to set the ring tone to silent and to speak at a reduced volume when making calls.

Internet

Internet access is provided free of charge via the hospital Wi-Fi. You may use your own Wi-Fi enabled device (laptop, tablet, or smartphone). After selecting the network "Patient Internet" and opening your internet browser, the login screen will appear briefly after that (if not, then enter <https://controller.access.network>). Once you confirm the terms and conditions, the use of the internet is unlocked. If you have questions: Hotline ☎ +49 (0)6221 56-7375.

Television and radio

At the day clinic, you have the option to watch TV or listen to the radio on a small monitor by your seat. You can use your own headphones or receive a pair from us free of charge. To avoid waste, we ask you to reuse them. Please get in touch with us.

Food and drinks

You can bring food and drinks to the clinical area. Out of consideration for fellow patients, please avoid odor-intensive products such as fish or garlic.



WHAT YOU NEED TO KNOW ABOUT YOUR TUMOR THERAPY



Your cancer therapy at the NCT will begin soon. In addition to the desired effects against cancer cells, the therapy may cause side effects. These cannot be avoided in all cases, but there are now many ways to prevent or alleviate them.

The patient's guide provides information and assistance on the following forms of treatment:

- **Chemotherapy**
- **Targeted therapy**

Chemotherapeutic substances affect all the cells in the body, in particular, rapidly dividing cells. This is the cause of the most common side effects which we would like to inform you about in this guide. Based on our experience, the measures we recommend can alleviate and at best even prevent side effects. If these measures prove ineffective, and side effects still occur or even worsen, please let us know immediately. Self therapy is not recommended at this point. A number of supporting drugs or even naturopathic care products are available to help relieve the symptoms. In addition to general side effects, each chemotherapeutic substance has specific side effects that you should know about. You will be informed in detail by the medical staff before the tumor therapy. Whether and to what extent side effects occur is very different from patient to patient and not all effect every patient. The absence of side effects has no relevance on the effectiveness of therapy.

So-called **targeted therapies** are drug treatments that precisely attack certain characteristics of the tumor or the tumor properties that promote the growth of cancer cells. Such therapies can therefore inhibit tumor growth. A patient can receive targeted treatment if the tumor demonstrates the relevant characteristics. These therapies are therefore not effective for every type of tumor and each patient. Targeted therapies can be used alone or in combination with chemotherapy or radiotherapy. Targeted therapies can also cause different side effects to those of chemotherapy. Your physician will provide you with detailed information about your upcoming treatment. The desired effects of targeted therapies and any potential side effects of targeted therapies are explained starting on page 24.

You can receive **additional information** from the medical staff and from the **Cancer Information Service (KID)** of the German Cancer Research Center (DKFZ) at

🌐 www.krebsinformationsdienst.de

✉ krebsinformationsdienst@dkfz.de

CHEMOTHERAPY



General side effects

Hair loss

The side effect of hair loss depends on the type of therapy. It generally occurs about 2–4 weeks after the first dosage of cytotoxic drugs and can affect all hair regions of the body, even eyelashes, eyebrows, and beards. Hair normally begins to grow again 2–4 weeks after completion of therapy. Scalp hair grows about one centimeter per month. There may be changes to the original hair texture and color.

We recommend:

- *A hairless scalp should be protected from both the heat, especially sunlight, and cold. The scalp also requires skin care with a product that corresponds to your type of skin, for example a moisturizing lotion.*
- *If requested, we can issue you with a prescription for a wig. We recommend you make use of this option at the start of therapy so that there is enough time to have a personalized wig made.*

Nausea and vomiting

Nausea and vomiting are the body's protective mechanisms to avoid poisoning or injury from inedible substances. Chemotherapy can cause such a reaction in the body.

The degree of nausea likely depends on the substance and the dosage of therapy. However, individual personal factors can also have an impact.

There are numerous very effective drugs that prevent and soothe nausea and vomiting.

Most patients have a good reaction to such supportive treatment. In contrast, untreated nausea is much more burdensome on the body and can lead to negative effects such as weight loss, mineral deficiency, weakness, stomach pain, etc.

It can be more difficult to alleviate nausea once it occurs than if preventive drugs are taken to suppress it.

Foregoing preventive medications may also cause the body to “learn” nausea and vomiting. Even small stimuli such as entering the hospital or the thought of chemotherapy may then cause nausea or vomiting.

This mechanism of “anticipatory nausea” is hard to treat, so we try to avoid it through preventive measures.

We recommend:

- *Before therapy, eat easily digestible food. If possible, do not come to your appointment on an empty stomach.*
- *Try to establish a relaxed atmosphere for the duration of chemotherapy. Reading, listening to music, or watching TV can provide relaxation and distraction.*
- *Eat snacks several times a day, and choose cool and dry food or juice ices.*
- *If you'd like, drink fresh ginger tea: Place a teaspoon of freshly peeled ginger cut into thin slices in a liter of water and bring to a boil for several minutes before straining. Drink the tea throughout the day. We do not recommend this tea if you experience hot flushes, fever, high blood pressure, and insomnia.*
- *For such symptoms, please take any home medications as prescribed. It is also important that you give us feedback on whether the medication is sufficient for you. If necessary, you can be prescribed additional medication.*
- *Additional measures such as acupressure, acupuncture, aromatherapy, and relaxation techniques can provide very good support, but they cannot substitute drug-based therapy.*

Loss of appetite

There are often changes to the sense of taste and smell due to the medication, which may mean you will no longer like familiar foods as before. Those affected by this often report that a lot of food tastes metallic or too sweet or too salty.

Typically, the sense of taste and smell return to normal after treatment.

Loss of appetite due to changes in taste can lead to weight loss, which should be prevented. [Inadequate nutrition weakens your body and can limit the effectiveness of the therapy.](#)

We recommend:

- *Check your weight regularly and learn more about nutrition from the team of nutrition therapy at an early stage.*
- *Rinse your mouth before eating and clean your tongue.*
- *There is no proof or scientific basis for assumptions that so-called cancer diets have a positive influence on the course of the disease or even starve the cancer.*

Request help!**Nutritional therapy**

☎ +49 (0)6221 56-37229

✉ ernaehrungstherapie@nct-heidelberg.de



Excrements

Cytotoxic drugs are excreted by the kidney. It is important that you ensure you are drinking enough to support your kidney function.

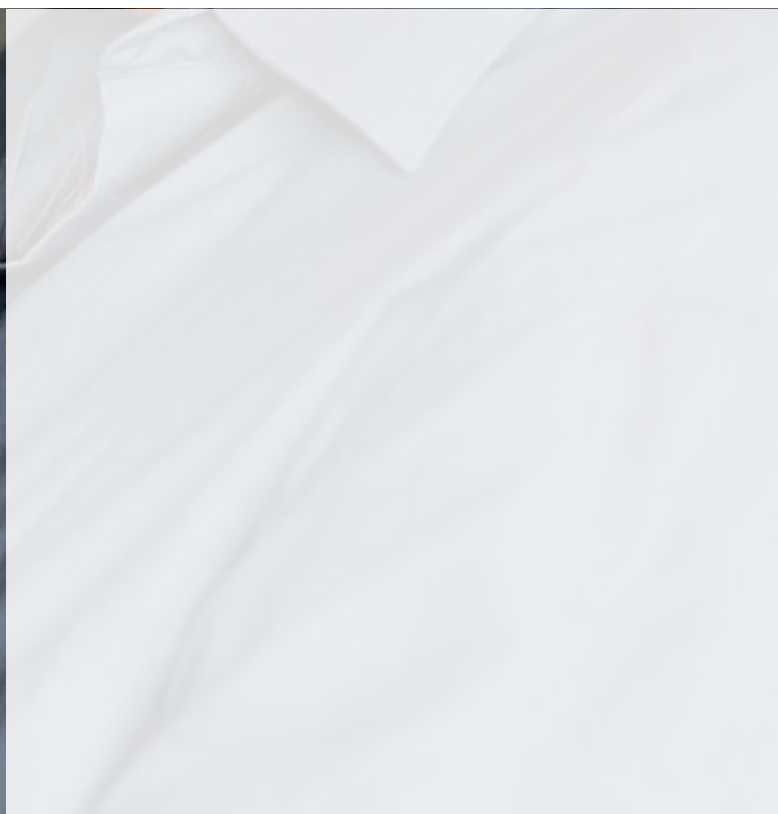
Some cytotoxic drugs contain dyes. Therefore, your urine may turn red up to 96 hours after the administration of the infusion.

Diarrhea is a common side effect of cancer therapy. Diarrhea can cause severe deficiencies in fluids and nutrients. You should inform us at an early stage of any changes in your stool so that we can advise you in time and support you with therapy. The same applies if constipation occurs.

Very small amounts of cytotoxic drugs are excreted through the skin.

We recommend:

- *Ensure you drink plenty of water, at least 1.5 liters per day.*
- *Prolonged skin contact with excretions, such as when using incontinence pads should be avoided. In such cases, pads should be changed frequently.*
- *If you perspire a lot, use your own towels and, if necessary, change your bedding frequently.*



Mucosal lesions

Mucous membranes are located in the area of the eyes, nose and respiratory tract, in the mouth and the entire digestive tract as well as in the urinary tract and in the genital area.

Mucous membranes are particularly susceptible to damage from cytotoxic drugs due to their rapid cell division. The damage causes inflammation in these areas.

Any additional irritations and injuries can have even more negative results. A weakened immune system can lead to infection of the mucous membranes and nutrient and vitamin deficiency also make the membranes more susceptible.

There may be various degrees of inflammation, in the form of redness, swelling or even bleeding lesions. In all cases, inflammation of the mucous membranes is painful and can greatly affect you, for example, when eating food. Inspect all areas of the mucous membrane and notify us of any changes so that we can recommend the appropriate measures.

We recommend:

- *Ensure good and careful oral hygiene. If possible, also clean your tongue.*
- *Keep mucous membranes moist by frequently rinsing your mouth with water.*
- *Use soft toothbrushes and tooth cleansing sugar-free chewing gum to stimulate saliva. Do not use dental floss or brush the cavities between your teeth.*
- *Rinse your mouth with chamomile or sage tea after every meal: Pour 300 ml of hot water over two teaspoons of chamomile flowers or sage, leave covered for three minutes before straining. If you would like to use tea bags, it is best to buy medicinal tea from the pharmacy. We do not recommend sage tea if you suffer from epilepsy.*
- *Avoid nicotine and alcohol.*



- *Avoid foods that are too hot or have rough edges.*
- *Eat cold food or frozen drinks.*
- *Ensure thorough and gentle intimate hygiene by using mild, pH-neutral washing lotions, possibly solutions that contain chamomile, and soft washcloths.*
- *If possible, do not use tampons.*
- *Avoid intimate sprays and wear underwear made of cotton.*

In addition to mucosal lesions, other physical as well as mental effects can mean changes in your sexuality. [Do not hesitate to discuss any such difficulties in this regard with your physician or the psycho-oncological consulting team, and these discussions can take place in a protected environment.](#)

Skin and nail changes

The most common side effects of treatment with cytotoxic drugs are a wide range of changes to your entire skin, individual areas of your skin, or your nails.

As a general rule, your skin is highly sensitive to UV light during tumor therapy and therefore direct sunlight should be avoided.

In addition, discoloration of the skin (hyperpigmentation) can occur which cannot be treated with preventive medication but usually disappears after completion of therapy.

Skin dryness and itching are also very common. There are a large number of soothing products available. The physicians and nursing staff will provide you with individual advice.



We recommend:

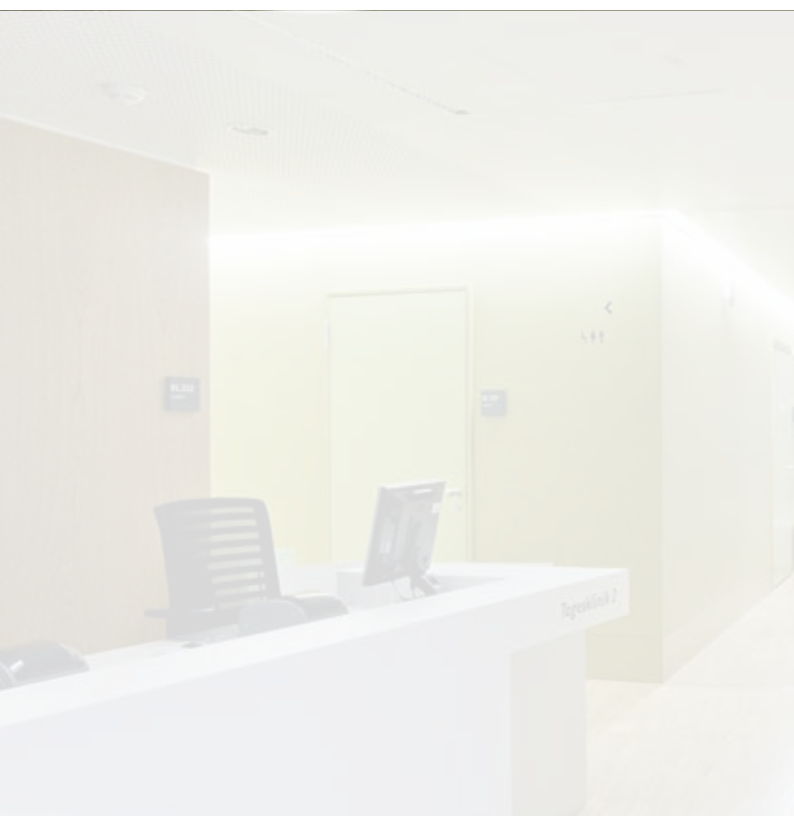
- Use pH-5 neutral bath and shower oils and substances that contain urea (5–10%).
- Wash or take a shower with lukewarm water without intensely rubbing your skin. Sensitive skin should be dabbed dry rather than wiped.
- Avoid skin contact with aggressive cleaning agents or alcohol-based cosmetics (perfumes, aftershave).
- Protect yourself from direct sunlight all year round and use UV protection (at least SPF 50).

Chemotherapy can damage the cells in the nail fold, which occasionally lead to changes in growth and discoloration of fingernails and toenails. This can lead to brittle nails, inflammation of the nail bed and in rare cases loss of the entire nail. Your nails will grow back after completion of therapy at the very latest. **Generally, nails should be protected against mechanical damage and UV radiation.**

We recommend:

- Ensure extensive nail care, daily cleaning, and treatment with a cream.
- Cut your nails straight and short after a warm hand and foot bath.
- If possible, use a disposable nail file. Such files are less rough than a metal file. Make sure that you file the nail from bottom to top.
- Do not push back the nail skins and avoid biting your nails.
- You can wear cotton gloves to avoid uneven nails.
- Use nail polish or nail hardener with UV protection.
- If necessary, take advantage of professional hand and foot care.

Certain cytotoxic drugs are known for their particularly damaging effects on nails. If you receive this therapy, we offer you frozen cold packs to cool your hands during the infusion. The aim here is to reduce the damaging effects of chemotherapy in the nail bed by constricting blood vessels in the fingers with cold packs.



Hand-foot syndrome

Hand-foot syndrome, [HFS for short](#), should be mentioned separately. As a specific side effect of certain cytotoxic drugs, this may occur especially on the palms of the hands and the soles of the feet. With various levels of severity, the symptoms can include numbness, tingling, redness, overheating, tension, swelling and peeling skin. Ulcers can also form and tissue can be damaged permanently. The treatment of HFS must be discussed individually. It is important that you inform us if you observe symptoms of hand-foot syndrome or notice any changes.

We recommend:

- *Maintain hands and feet with moisturizing lotion or products that contain urea (5–10%).*
- *Do not use care products that contain essential oils or are heavily scented.*
- *Avoid rubbing and applying pressure on the skin, for example wearing tight shoes, constricting clothing, or rough fabrics.*
- *Avoid pressure on the hands and feet, for example by playing the violin or piano, archery, or bowling. Do not open screw caps on glass jars and bottles with your bare hands.*
- *Avoid contact with household cleaners, dishwashers, and laundry detergents.*
- *Avoid extreme temperatures such as hot water, sauna, or steam baths.*
- *Sports in which you sweat heavily should not be performed during and between the cycles of chemotherapy.*
- *Do not walk barefoot.*
- *Take advantage of professional hand and foot care.*

Polyneuropathy

Certain cytotoxic drugs can cause damage to the nervous system. The symptoms here are manifold. They include paresthesia, numbness, muscle cramps, fine motor skills disorder, spontaneous pain at rest, motion pain, tenderness, and skin lesions. In addition, it can lead to a loss of strength and impairments to your motor skills when standing or walking. Common symptoms are sensations that are first felt in the tips of your fingers or toes and which then spread when for example putting on gloves or socks.

We recommend:

- *Regularly train your physical functions, in particular the movement of your fingers and toes.*
- *Perform sensory training with a bean bath, spikey ball, or fascia roller.*
- *Take advantage of professional and specific physiotherapy or sport and exercise therapy.*
- *Regularly check for injuries to your skin or bruising and be careful when trimming your nails.*
- *Apply a sugar-oil peeling: Mix a teaspoon of sugar with a teaspoon of olive oil and rub your hands and/or feet with it 1–2 times per week for 5–10 minutes. Be careful as your feet may be slippery after applying the peeling!*
- *We would be glad to advise you on the use of naturopathic products such as Aconit pain-relieving oil, lavender oil, or bath salts.*

Please inform your treatment team if any of these symptoms occur or if there are any changes.

Request help!

Exercise, sport, and cancer

☎ +49 (0)6221 56-5918

✉ krebssport@nct-heidelberg.de

Fatigue

Fatigue is the persistent feeling of tiredness that is difficult to overcome, and which leaves you with a feeling of total exhaustion both emotionally, mentally, and physically. This type of fatigue is characterized by the fact that it occurs irrespective of personal daily routine and unrelated to any physical effort you may have made. Sleep or rest do not provide any substantial improvement.

Many patients suffer from fatigue over the course of their illness and therapy, and this often has a significant effect on their quality of life. There are many reasons for this; the tumor disease itself can cause fatigue, and treatment such as chemotherapy, radiation and surgery, may also be responsible. Side effects of the disease such as anemia, pain, malnutrition, hormonal changes, or infections can also contribute. Last but not least, mental stress also plays a role in developing fatigue. Even if it continues for weeks or months, fatigue usually subsides over time. As the causes can be very different, the recommendations for treatment will vary greatly. Therefore, we can only provide some general tips at this point. Depending on whether you suffer from emotional or physical exhaustion, we recommend contacting the psycho-oncological outpatient clinic or the department "Movement and Cancer" at the NCT Heidelberg.

We recommend:

- *Try to find a balance between phases of activity and rest.*
- *Sleep does not always provide enough relief. Avoid phases of deep sleep during the day.*
- *Include light physical activity as a regular part of your daily routine. But stay within your physical limits.*
- *Regular walks in the fresh air provide for additional oxygen and can generate energy.*
- *Light exercise, such as walking, cycling, and swimming, can reduce fatigue. Do not expect to perform at any high level that you had perhaps reached before your illness.*

Request help!

Psycho oncology

☎ +49 (0)6221 56-4727

✉ psychoonkologie@nct-heidelberg.de

Exercise, sport, and cancer

☎ +49 (0)6221 56-5918

✉ krebssport@nct-heidelberg.de



Changes in your blood count

Tumor therapies can interfere with the formation of blood in bone marrow.

This also applies to

- *White blood cells (leukocytes), which increases the risk of infection.*
- *Red blood cells (erythrocytes), which are synonymous with anemia and can cause rapid fatigue and exhaustion.*
- *Blood platelets (thrombocytes), which can increase the possibility of hemorrhaging.*

You cannot counteract changes in your blood count through behavioral measures. Your physician will initiate appropriate treatment.

Risk of infection

As mentioned above, chemotherapy may cause leucopenia, that is, reduced production of white blood cells. This may lead to an increased risk of infection for you. An initial sign of infection may be fever.

If your body temperature rises above 38°C (100°F) or if you experience chills, you must contact your treatment team immediately (see “Symptoms that you must report”). In most cases, we will ask you to come to the clinic for diagnosis and treatment. An infection must be treated as soon as possible, since in the worst case it could be life-threatening.



TARGETED CANCER THERAPIES



Targeted therapies are new types of drug therapy for cancer. They are part of a form of treatment that is often described as personalized therapy. They attack certain characteristics of the tumor or tumor properties and may block the growth of tumor, slow metabolism, or activate the immune system.

Targeted therapies focus on the biological properties of the tumor. Any modified property of a tumor compared to a healthy cell is referred to as a biomarker.

A patient can receive targeted treatment only if the tumor demonstrates such properties. Therefore, this treatment is not available for all types of tumors. Targeted therapies should only attack cancer cells, but the structures targeted by the new drugs sometimes occur in healthy cells. These therapies can therefore also have side effects.

You can obtain **additional background information** from the **Cancer Information Service (KID)** of the German Cancer Research Center at

🌐 www.krebsinformationsdienst.de

✉ krebsinformationsdienst@dkfz.de

Antibody Therapeutics

Effect

Therapy with antibodies which aims to work against certain characteristics of the tumor cell or to stop the growth or supply of the tumor cell.

Side effects

Antibody therapies, ideally, only recognize tumor cells. Sometimes, the properties of the tumor cells which should be attacked also occur in healthy cells. As a result, these treatments can cause side effects which depend on the therapy substance. Your physician will explain the effectiveness and possible side effects of the substance in detail.

Immune therapies

Effect

Immune therapies aim to systematically support or activate the body's immune system to detect and attack cancer cells.

Side effects

A particular activation of the immune system may cause the risk that the immune cells turn against the body's healthy cells, triggering an autoimmune reaction. Side effects can be; infections of the skin, lungs, liver, thyroid, kidney, or gastro-intestinal tract. The potential reactions depend on the therapy and will be explained in detail by your physician. In addition, patients will receive an emergency ID card to indicate treatment with immunotherapeutics.

IMPORTANT INFORMATION

Self-medication

Some medications, even seemingly harmless herbal substances, can significantly affect the treatment and side effects of cancer therapies.

This also applies to:

- medicinal drugs that you have in your medicine cabinet, such as headache or sleep medication.
- medication that you take in the context of other diseases, such as cardiovascular or diabetes.
- so-called natural remedies and plant-based components, for example, St. John's wort, grapefruit, echinacea, and ginkgo.
- dietary supplements, for example, vitamins, trace elements, and enzymes.

Inform your treatment team about any self-medication before or at the beginning of tumor therapy as well as about any changes.

Complementary and alternative therapies

The desire to remain active and add to the success of a therapy may lead many patients to try complementary therapies. In this case, it is important to distinguish between complementary medicine, which can be supportive and is based on scientific evidence, and alternative medicine, which often lacks such evidence and can therefore be considered as dubious.

Not everything that is herbal or natural should be used without hesitation. Serious side effects and complications may occur.

It is in your interest to consult your treatment team or request support measures.

To help you in the decision-making process, contact information services such as www.krebsinformationsdienst.de or www.prio-dkg.de

Inform your treatment team about any supportive or supplementary therapies you are receiving.

The right dosage

Most cancer therapies are administered in a dosage that is specific to you as a patient. The best possible therapeutic success can be achieved with the right dosage.

The dosage is adjusted to your body in m^2 , which is calculated using your height and weight.

Therefore, it is necessary that you know and tell us your actual body size at the beginning of therapy. As your weight can fluctuate, it is essential that you determine and tell us your current body weight in the morning on the day of therapy.

If your weight fluctuates significantly, the dosage of your therapy may need to be adjusted.

Port catheter

In general, we recommend a port catheter to ensure the safe administration of cytotoxic drugs.

Administration of cytotoxic drugs through a peripheral venous catheter can cause irritation or infection of the veins or even permanent damage.

Please ask about the appropriate way to administer your therapy.

Request help!**Port office hours**

☎ +49 (0)6221 56-6220

🌐 www.klinikum.uni-heidelberg.de/portzentrum

Dental treatments

We recommend that you inform your dentist that you will receive cancer treatment in the form of chemotherapy. It is important that you consult with us before any major dental procedures. This includes the removal of one or several teeth, root canal treatment as well as the insertion of implants.

In some cases, a therapy may need to be interrupted as a result of treatment as it may cause delayed healing of wounds or a serious infection.

Late side effects

Some side effects can occur weeks or even years after treatment.

If you see a physician, it is important to inform them about your tumor therapy, even if this has been completed or several years have passed.

SYMPTOMS THAT YOU MUST REPORT

Please report the symptoms highlighted in **orange** to your treatment team by telephone immediately.

Outside the opening hours of the NCT Heidelberg, at night or on the weekends, you should contact one of the emergency outpatient clinics of the University Hospital:

**Department of Internal
Medicine**

 **+49 (0)6221 56-8611**

**Women's Hospital/
Department of Dermatology**

 **+49 (0)6221 56-4002**

Head Hospital

 **+49 (0)6221 56-6999**

Important information for the treatment team at the NCT Heidelberg which you should specify at your next appointment is listed opposite in **blue**.

Fever	> 38°C (100°F)
Pulmonary	Respiratory distress Difficulty breathing Pain when breathing Coughing Signs of the common cold
Bladder	Spasms of the bladder Pain when urinating Blood in your urine Very dark urine Foul-smelling urine Small amounts of urine
Nerves	Tingling in your hands, fingers, or feet Numbness Paralysis Seizures Acute pain Chronic pain
Gastrointestinal tract	Stomach pain Diarrhea (> 6x / day or severe cramps) Blood in your stool Vomiting (> 5x / day) Heartburn Problems swallowing
Skin	Cracks in your skin Extensive redness or rashes Skin blisters Purulent pimples Jaundice
Water retention	Swollen arms, legs
Oral mucous membranes	Lesions (injuries) Burning Surfaces that cannot be rinsed Feeling of dryness

ADVISORY SERVICES



As a patient of our day care unit, you will receive advice and practical assistance not only from our physicians and nursing staff with but also from the staff of NCT Advisory Services.

Each patient has their own individual history and seeks answers to specific questions. In addition to the disease and treatment, these may relate to a wide range of different aspects of life involving issues with nutrition, fears and concerns that arise in connection with the illness, or very specific everyday problems such as child care or financial and occupational stress. We, the employees and staff of advisory services at the NCT, will take the necessary time to inform, advise and support you. We are here not only for patients but also as support for family members and we strive to find answers to your questions together.

If you have any questions, contact the nursing staff at the day care unit or get in touch with us directly.

You will find the contact details of the respective advisory service in this guide on the following page and in the enclosed brochure "Information – Consulting – Support".

ANKKER – Angebot für Kinder
 krebskranker Eltern
 (Services for children of cancer patients)
 NCT Heidelberg
 Im Neuenheimer Feld 460
 69120 Heidelberg
 ☎ +49 (0)6221 56-4727
 ✉ psychoonkologie@nct-heidelberg.de
 🌐 www.klinikum.uni-heidelberg.de

Exercise, sport, and cancer

NCT Heidelberg
 Im Neuenheimer Feld 460
 69120 Heidelberg
 ☎ +49 (0)6221 56-5918
 ✉ krebssport@nct-heidelberg.de
 🌐 www.nct-heidelberg.de

Transition care

NCT Heidelberg
 Im Neuenheimer Feld 305
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Heidelberg Self-help office

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 ✉ info@selbsthilfe-heidelberg.de
 🌐 www.selbsthilfe-heidelberg.de

Cancer Information Service (KID)

of the German Cancer Research Center
 Free telephone consultation:
 daily from 8:00 a.m. to 8:00 p.m. at
 ✉ krebsinformationsdienst@dkfz.de
 🌐 www.krebsinformationsdienst.de

Clinical ethics consultations

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Psycho-oncology

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Palliative-Care-Team SAPHiR

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Spiritual care

Medizinische Klinik I-IV, Innere Medizin
 Im Neuenheimer Feld 410
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Catholic hospital chaplaincy:

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Evangelical hospital chaplaincy:

☎ +49 (0)6221 56-36546

Islamic hospital chaplaincy:

Arabic German ☎ +49 (0)179 9120631
 Turkish German ☎ +49 (0)152 54648499

In urgent cases, the placement of a pastoral member of various religious communities is possible by contacting reception of University Women's Hospital ☎ 06221 56-7856.

Social service

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69120 Heidelberg
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**Breast Care Center of the
University Women's Hospital**

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Port center

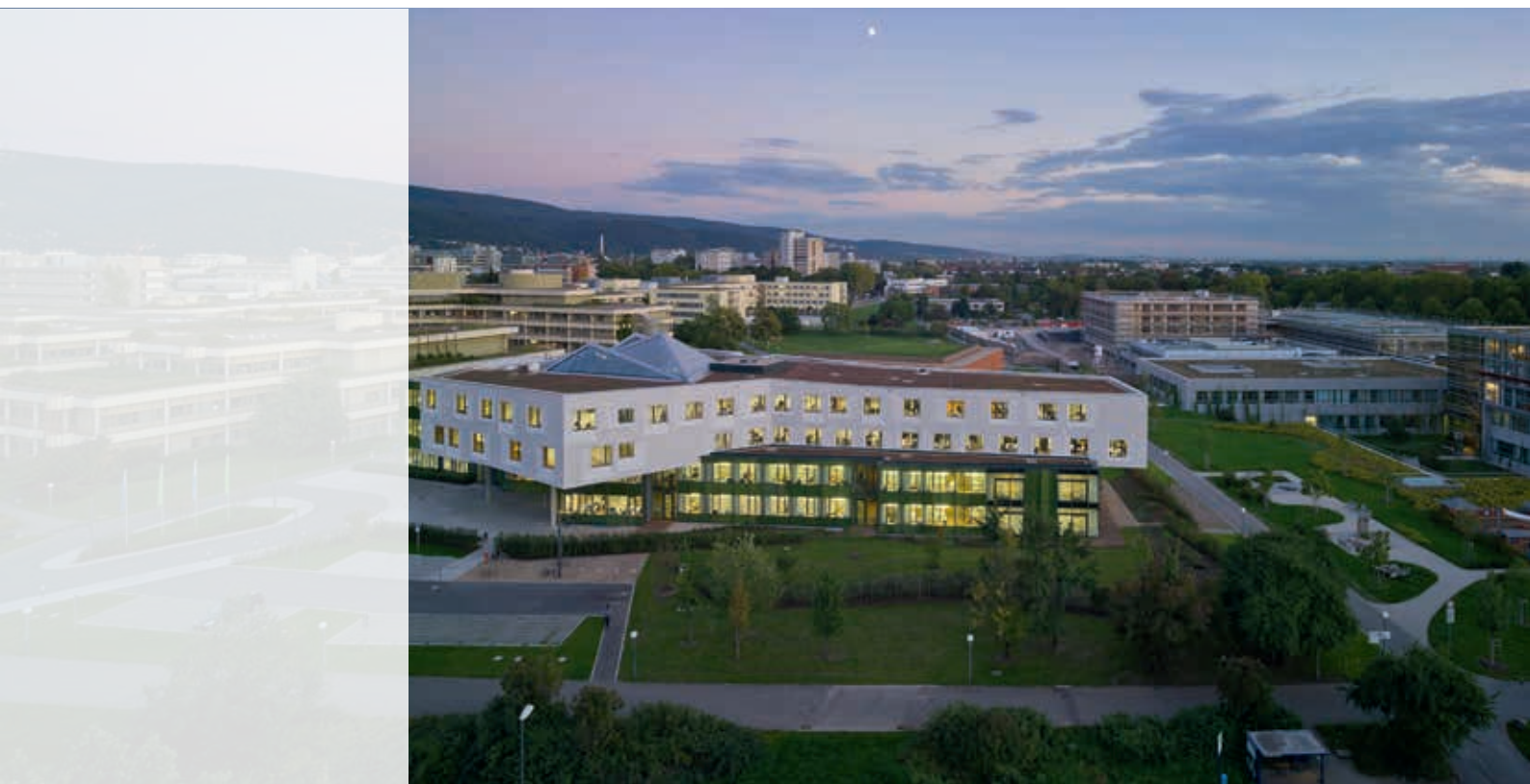
Outpatient clinic of the Department of Surgery
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🌐 www.klinikum.uni-heidelberg.de/portzentrum

Thorax clinic

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🌐 www.thoraxklinik-heidelberg.de

**Center for Pain Therapy
and Palliative Medicine**

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🌐 www.klinikum.uni-heidelberg.de



A to Z

Below you will find some medical terms that you may encounter in your treatment. As a general rule, the following applies: If you have not understood something, please ask.

Adjuvant therapy

Treatment following the surgical removal of a tumor with the aim of destroying potential micro metastases.

Alopecia

Hair loss

Anemia

Reduction of red blood cells

Anti-body therapy

Targeted therapy with anti-body drugs that affects certain structures on the surface of cancer cells.

Anti-hormone therapy

Drug treatment that suppresses the sex hormones. Tumors in which hormones act as a growth stimulus are treated.

Ascites

Accumulation of fluid in the abdominal cavity, for example due to a peritoneal tumor.

Biopsy

Removal of tissue for a histologic examination to ensure an accurate diagnosis.

Carcinoma, Ca

Malignant tumor, cancer

Curative treatment

Treatment with the objective of healing. This refers to the sequence of phases of treatment related to tumor therapy.



Cytostatic drugs

Drugs administered as infusions or tablets, with the goal to kill or to inhibit the growth of malignant cells. The treatment with cytostatic drugs is called chemotherapy.

Cytotoxic drugs

Medicines in the form of infusions or tablets that aim to inhibit the growth of malignant cells or destroy them. Chemotherapy is a treatment with cytotoxic drugs.

Edema

Water retention in body tissue, mostly on hand and foot joints as well as in the eyelids.

Emesis

Vomiting

Erythrocytes

Red blood cells, which carry oxygen.

Hemoglobin, Hb

Protein module that binds oxygen in the red blood cells. An Hb value measured in the blood that is too low results in anemia.

Leukocytes

White blood cells, which work to defend against pathogens and foreign structures. They are part of the immune system.

Metastasis, Filia

Secondary tumor of a malignant tumor, caused by cancer cells spreading from the original tumor (primary tumor).

Nausea

Feeling sick, vomiting

Neoadjuvant therapy

Treatment prior to the scheduled surgical removal of a tumor with the objective of reducing the tumor and killing potential micro metastases at an early stage. In addition, the response of the tumor to the therapy can be assessed.

Neuropathy

Disease of the nerves, which causes abnormal sensations like tingling, stinging, or numbness.

Palliative therapy

Treatment with the objective of relieving symptoms and improving quality of life

Pleural effusion

Fluid accumulation in the gap between the lung and chest wall, for example, due a pleural tumor.

Port catheter, port

A permanent implantation under the skin to access to the venous blood circulation for administering infusions and collecting blood.

Recurrence

Relapse; recurrence of the tumor after previous treatment

Sentinel lymph node

“Guardian” lymph nodes. The first lymph nodes within a certain lymph drainage region. The existence of such nodes on cancer cells is indicative of more lymph node metastases.

Staging

Assessment of tumor expansion, for example through abdominal ultrasound, skeletal scintigraphy, thoracic x-rays, computed tomography (CT), magnetic resonance imaging (MRI)

Supportive medication

Supportive therapy; generic term for medicines and measures that will be used to prevent or alleviate symptoms and side effects of treatment (for example, chemotherapy).

Thrombocytes

Blood platelets, which play an important role in hemostasis and healing wounds

Tumor markers

Proteins produced by the tumor, which can be detected in the blood.



Parking lot for patients and visitors

Parking pay station

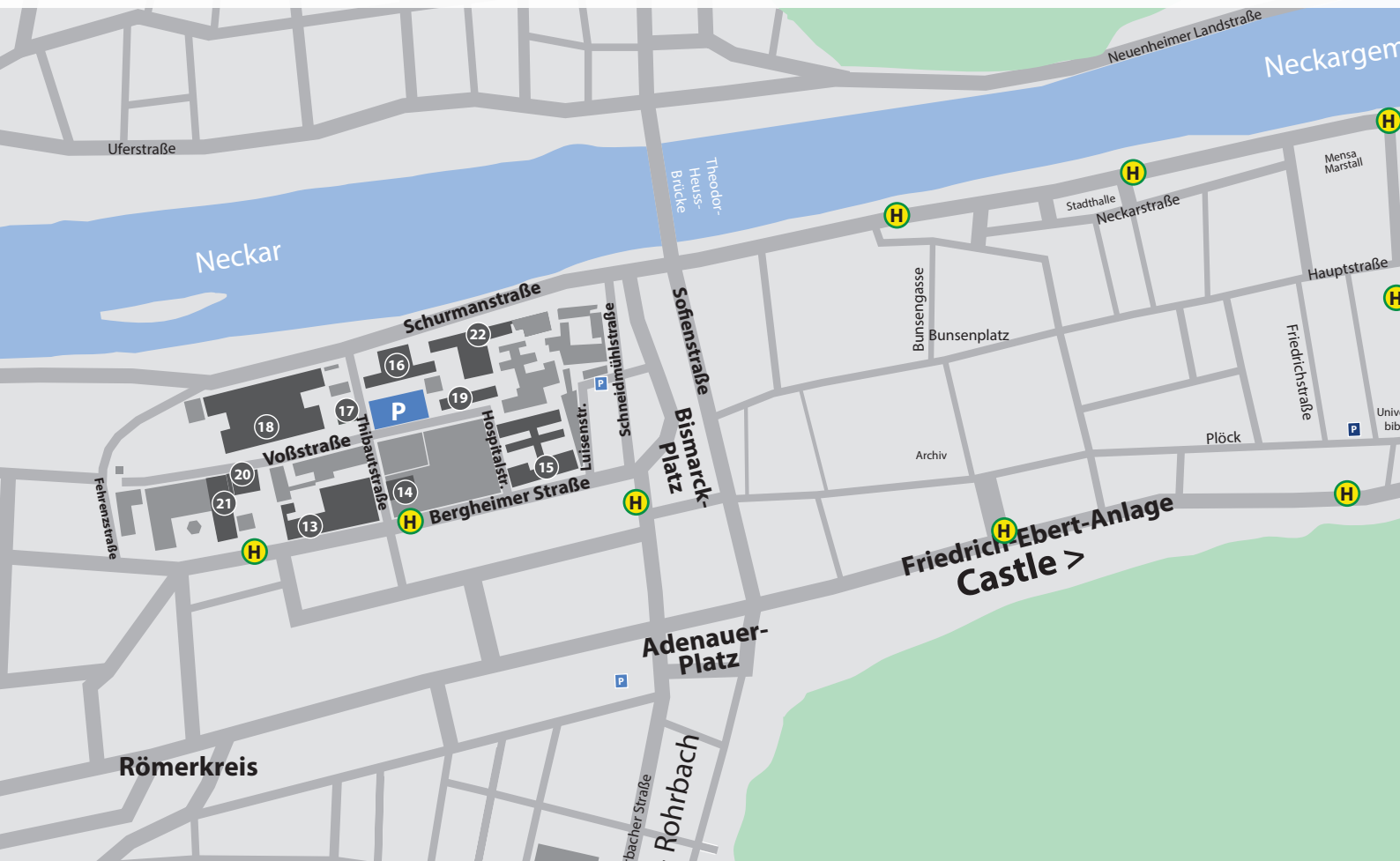


Heidelberg, Neuenheimer Feld

- 1 Center for Otorhinolaryngology _____ INF 400
- 2 Department for Internal Medicine _____ INF 410
- 3 Children's Hospital _____ INF 430
- 4 Pain Center _____ INF 131
- 5 Department of Surgery _____ INF 110
- 6 Pathological Institute _____ INF 224/220/221
- 7 DKFZ (German Cancer Research Center) _____ INF 280
- 8 Institute for Immunology, _____ INF 305
Medical Biometry and Computer Science
- 9 Institute for Human Genetics _____ INF 366
- 10 Ion Beam Therapy Center _____ INF 450
- 11 NCT** _____ **INF 460**
- 12 Women's and Dermatology Hospital, _____ INF 440
Genetic Outpatient Clinic

Heidelberg, Bergheim

- 13 Family Therapy _____ Bergheimerstraße 54
- 14 Clinical social medicine _____ Thibautstraße 3
- 15 Medical Psychology _____ Bergheimerstraße 20
- 16 Psychiatric Outpatient Clinic _____ Voßstraße 2–4
- 17 Psychosomatic Outpatient Clinic _____ Thibautstraße 2
- 18 Psychiatric Hospital (Entrance) _____ Voßstraße 4
- 19 Prinzhorn Collection _____ Voßstraße 2
- 20 Child and Adolescent Psychiatry/ _____ Voßstraße 11
Medical Services
- 21 Psychosomatic and _____ Bergheimerstraße 58
Psychiatric Hospital
- 22 Coordination center _____ Voßstraße 2, Building 4410
for clinical studies





Strong through strong partners

The German Cancer Research Center (DKFZ) and the Heidelberg University Hospital (UKHD) join their force in the National Center for Tumor Diseases (NCT) to the benefit of the patients. The German Cancer Aid promote the NCT Heidelberg as an Oncological Top Center.

www.nct-heidelberg.de

The National Center for Tumor Diseases Heidelberg



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Heidelberg University Hospital (UKHD) is one of the most important medical centers in Germany; Heidelberg University's Medical Faculty is one of Europe's most prestigious biomedical research facilities. Their shared objective is the development of innovative diagnostics and treatments and their prompt implementation for the benefit of the patient. The hospital and faculty employ approximately 13,000 individuals and are involved in training and qualification. Every year approximately 65,000 patients are treated as inpatients or day patients in more than 50 specialized clinical departments with about 2,000 beds, with more than 1 million patients being treated as outpatients. The Heidelberg Curriculum Medicinale (HeiCuMed) is at the forefront of medical training in Germany. At present approximately 4,000 prospective physicians are studying in Heidelberg.



The **German Cancer Research Center (DKFZ)** with its more than 3,000 employees is the largest biomedical research institute in Germany. At DKFZ, more than 1,000 scientists investigate how cancer develops, identify cancer risk factors and endeavor to find new strategies to prevent people from getting cancer. DKFZ is a member of the Helmholtz Association of National Research Centers, with ninety percent of its funding coming from the German Federal Ministry of Education and Research and the remaining ten percent from the State of Baden-Württemberg.



Deutsche Krebshilfe
HELFFEN. FORSCHEN. INFORMIEREN.

The **German Cancer Aid** was founded by Dr. Mildred Scheel in 1974. The objective of the non-profit-making organization is to fight against all manifestations of cancer. The German Cancer Aid is the most important private financier in the field of cancer research in Germany.



Support our work at the NCT

It is our goal to defeat cancer. With your support we will reach this goal earlier.

Please visit our donations page at

www.nct-heidelberg.de/spenden.

Contact

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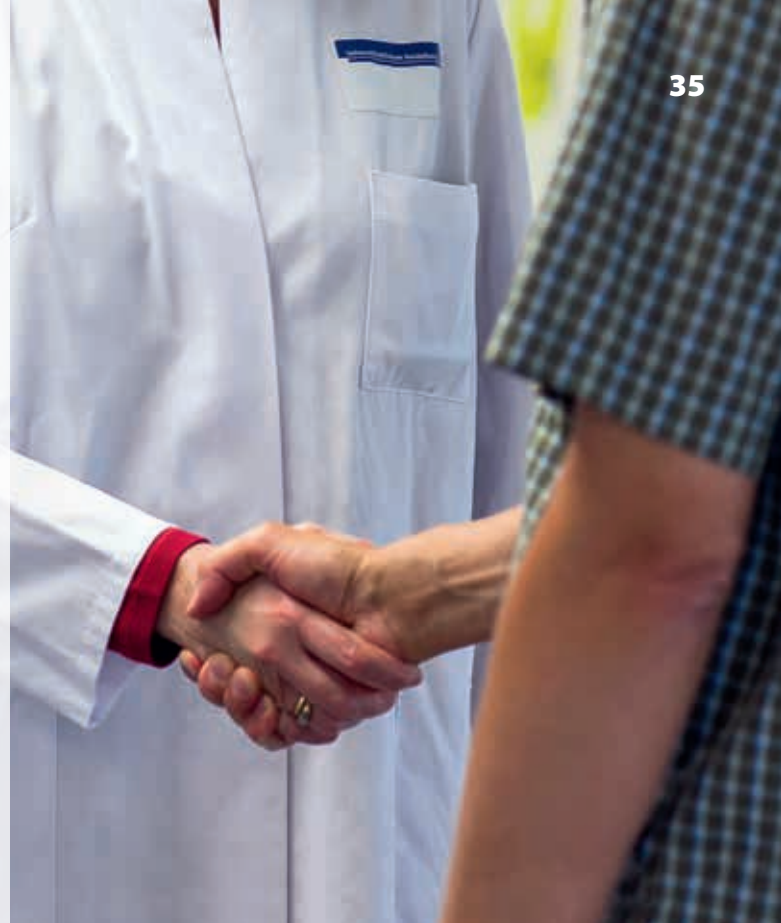
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Bibliography

A. Margulies, Th. Kroner, A. Gaisser, I. Bachmann-Mettler (2017) *Onkologische Krankenpflege*. Springer-Verlag, Th. Kroner, A. Margulies, Ch. Taverna, C. Studer (2017) *Medikamente in der Tumorthherapie: Handbuch für die Pflegepraxis*. Springer-Verlag, Krebsinformationsdienst am DKFZ Heidelberg, PRIO Prävention und Integrative Onkologie, eine Arbeitsgemeinschaft der Deutschen Krebsgesellschaft DKG.

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