

# ASKLEPIOS NEWSLETTER

Issue 1/2017



Photo: Fotolia arendt schmolze

## Dear Readers,

As always, we would like to use our newsletter to give you a more in-depth glimpse into a selected field of medicine. Our first issue provided some insight into oncology. There is an interesting update: the Asklepios Kliniken in Hamburg have joined to create the Asklepios Tumour Centre Hamburg. This network will make interdisciplinary collaboration even easier. Our patients will therefore receive the best treatment, regardless of their primary care clinic. Another new feature: our surgeons can now operate using the latest version of the da Vinci robotic surgical system, which will simplify many procedures.

The actual focus of this newsletter is joint surgery. Today, many people are afflicted by arthritis and other bone diseases that restrict their mobility and are associated with chronic pain. There are joint-preserving procedures available, as well as excellent options to replace the joints with endoprosthetics. Read on to learn more about our best centres for these conditions.

Wishing you the best of health!

Dr Thomas Wolfram,  
Chairman of Asklepios Kliniken GmbH

## Asklepios as a clinic operator

Asklepios is one of the largest operators of private clinics and healthcare facilities in Germany. Founded more than 30 years ago, the clinic group follows a responsible and sustainable strategy geared towards a high level of safety and quality. The group currently has more than 150 healthcare facilities spread across Germany between the Island of Sylt on the North Sea and Lindau by Lake Constance and employs more than 46,000 employees. In the 2015 fiscal year, the Asklepios treated around 2.3 million patients.

Medical quality management at the highest level is an area in which Asklepios particularly excels. The clinic operators benefit from the group's structure to promote knowledge transfer between the facilities and to provide particularly excellent treatment. The results are also published regularly. For instance, the medical findings report is published annually at [www.qualitätskliniken.de](http://www.qualitätskliniken.de), of which Asklepios is a charter member. Moreover, 25 criteria on patient safety are published regularly on the Internet.

## ORTHOPAEDICS / ENDOPROSTHETICS

### Artificial joint replacement: Custom built and safety implanted

Individualised therapy is one of the major trends in modern medicine. Increasingly modified artificial joints can now be built to suit the personal requirements and anatomical needs of the patient in question. It is true that standardisation and routine procedures promise a significant degree of safety, as physicians that possess more experience with a particular surgical technique and the implants used are likely to produce better results. But the Asklepios Klinik Lindenlohe with its specialisation in endoprosthetics is a prime example that tailored treatment and standard procedures are not mutually exclusive. Here, Professor Heiko Graichen and his team combine the benefits of standardisation and individual healthcare to offer patients ideally modified solutions with an outstanding level of safety. This is increasingly attracting patients from other parts of Germany and abroad to Lindenlohe.

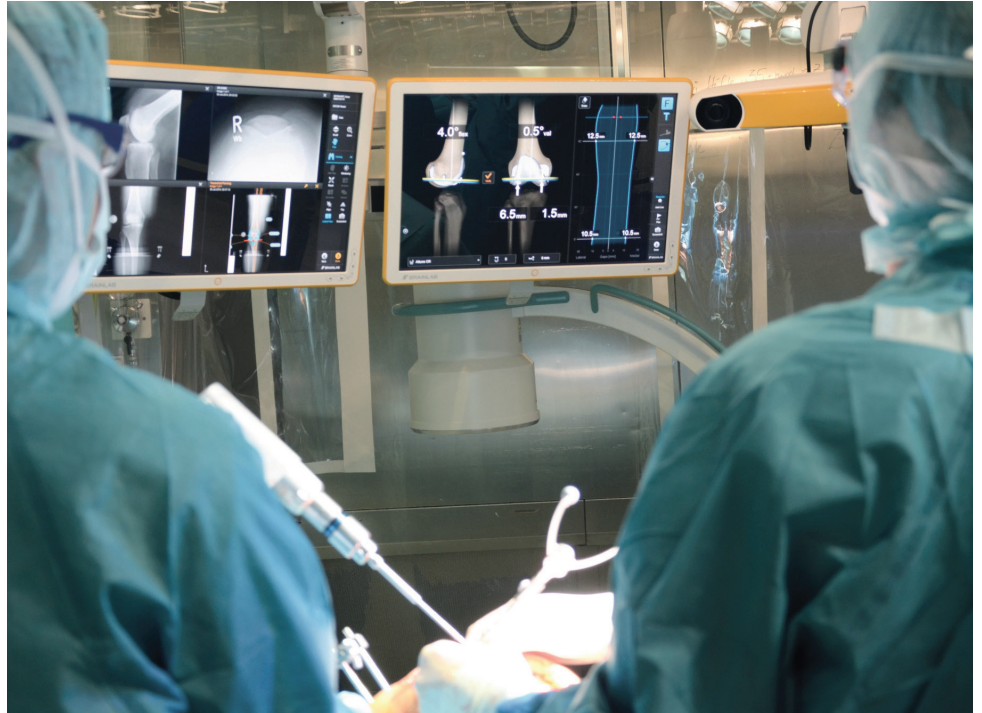
#### Individual treatment for better results

Once upon a time, the only difference between the prosthetics that patients received was their size. The post-implant treatment was always the same as well. But the procedures now performed in leading centres like Asklepios Klinik Lindenlohe are significantly more diverse. The first stage



Asklepios Orthopaedic Clinic Lindenlohe

Photo: Asklepios



The surgical team under Professor Heiko Graichen uses a modern navigation system to perform endoprosthetic procedures.

Photo: Asklepios

before the operation is to analyse the joint in question. The specialists then use this data to select the ideal implant or to build a custom joint replacement. In doing so they pay attention to the patient's profession and leisure habits, the condition of the bones and any anatomical anomalies. The operation itself is also planned meticulously in advance in order to achieve the best possible result. Professor Graichen uses state-of-the-art technology to put the plans into practice in the theatre. A navigation system is on hand to assist the surgeons in the precise positioning and alignment of the implant. Post-operative treatment is also tailored to suit the individual needs of the patient. Treadmill analyses and pressure measurements indicate muscular weakness and hence enable exact adjustment of the training plan.

#### Standard processes for fewer complications

Professor Graichen and his team do not perceive standardisation as a restriction in the number of prosthetics they use; instead they take it to mean the establishment of structured treatment sequences – from admission to discharge. Standardisation of procedures, instruments used and the necessary individual stages ensures that deviations or mistakes do not happen. All the same, it is at the discretion of the surgeon to depart from the standardised sequence if needs be. This also ensures a significant reduction in complications.

Professor Graichen's outstanding national and international reputation and a comparison between the main quality metrics used in the assessment of endoprosthetics and the average figures published by German clinics nationwide – which places Asklepios Klinik Lindenlohe firmly in the top field – clearly demonstrate how successful this concept is.

## ONCOLOGY

### Experience and teamwork between the physicians are life or death factors

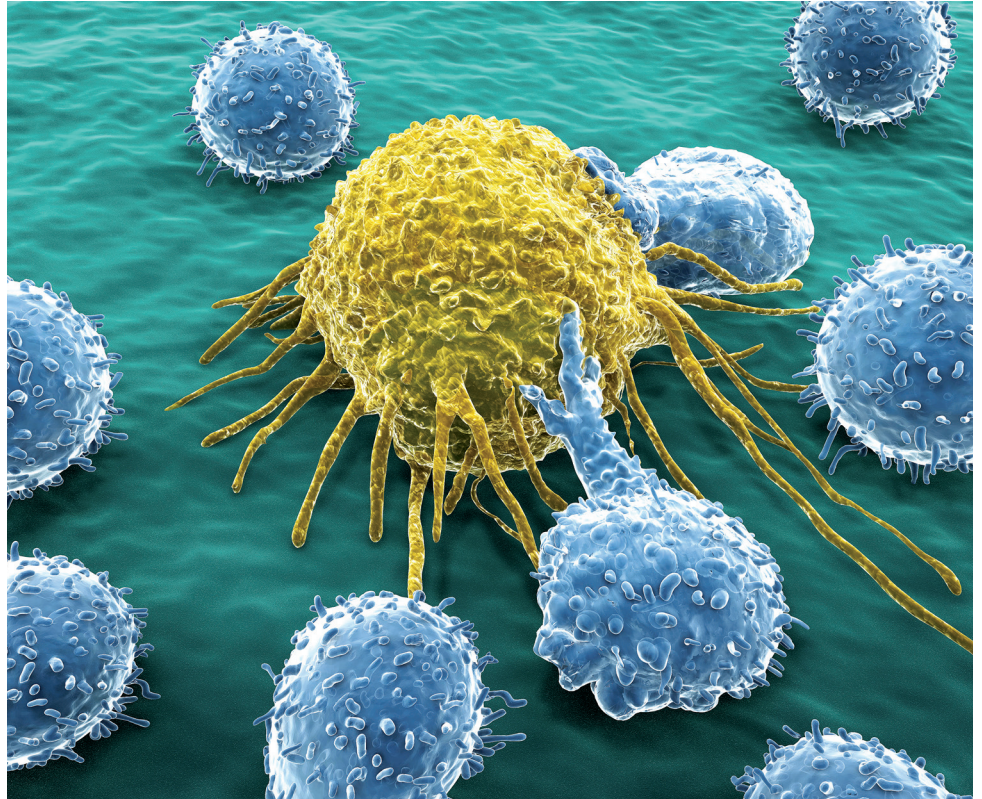
#### Asklepios Tumour Centre pools the expertise of over 200 specialists

The options for the treatment of malignant tumours have expanded significantly in recent years. Modern treatment strategies mean that many diagnoses that were once equivalent to a death sentence are now curable or can be controlled to such an extent that patients afflicted by these conditions enjoy a good quality of life for much longer. Medical progress has reached all areas of diagnosis and treatment, from early detection and medication, surgical techniques and radiation therapy, through to the targeted treatment of tiny quantities of residual tumour material that may lead to a re-emergence of the disease even long after a successful cancer therapy.

But the sophistication of medical procedures also means that physicians are becoming increasingly specialised. This presents opportunities and risks for patients. After all, in the worst-case scenario and despite all treatment policies, the success of their treatment and hence their very survival will depend on whether the attending physician happens to be specialised in their particular disease or can at least cooperate closely with a suitable specialist. Certainly the immense advancement of knowledge in medical research will exceed the particular experience of one individual physician.

#### Pooling expertise allows for ideal treatment results

This prompted the Asklepios Kliniken in Hamburg to create an inter-locational tumour centre as a close network that brings together the knowledge and experience of over 200 cancer specialists working in seven clinics, known as the Asklepios Tumour Centre Hamburg. It now treats over 16,000 cancer patients and is therefore the largest oncological expert network in the Hanseatic city and one of the biggest anywhere in Germany. A large



Asklepios organised its own first cancer congress in February 2017. Luminaries from the field attended the event to report on the latest research.

*Photo: Juan Gärtner  
(Fotolia.com)*

proportion of the patients come from other German states or from abroad to receive superb quality of treatment. The large number of patients treated here means that the physicians at the Asklepios Tumour Centre Hamburg also have experience with rare symptoms and highly specialised treatment procedures.

Pooling knowledge at a central location has substantial benefits for patients as well: regardless of the clinic they attend first or in which they are treated, the cases are assessed and discussed in an interdisciplinary tumour panel comprising experts from all clinics, ensuring that each patient benefits from input by the specialist most experienced in the treatment of their particular condition. Moreover, a second opinion is obtained in each case from another specialist in the network when dealing with complex tumour diseases or certain diagnoses. Proceeding in this way ensures that the ideal and state-of-the-art treatment procedures are used at all times

in accordance with the latest insight from scientific research and clinical guidelines.

In Hamburg, Asklepios has nine organ centres certified by professional associations that work together under the umbrella of the Tumour Centre Hamburg: Each of them is specialised in the treatment of particular tumours of the breast, colon, pancreas, oesophagus, stomach, liver and gall bladder, the head/neck/spine and skin. The highly specialised Centre for Radiotherapy looks after the area of radiology, which requires a particular degree of technical sophistication; this facility also includes the prestigious Hermann Holthusen Institute at Asklepios Klinik St. Georg.

The da Vinci surgical robot means that the surgeons have the latest equipment at their disposal as well. Here, the surgeon uses a panel to control the robot arms, thus providing greater flexibility than would be possible in manual procedures.

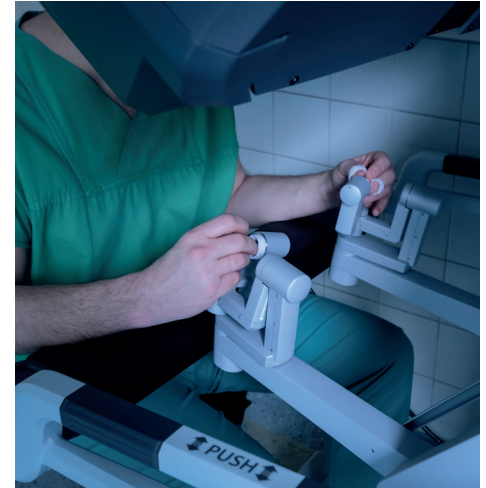
## ONCOLOGY

### The opinions of experts are particularly important in the formation of metastasis

The expertise of the tumour specialists from Hamburg is especially coveted when dealing with advanced cancer. This is because the Asklepios Tumour Centre has numerous departments with particular experience in the treatment of secondary tumours of the organs. Outstanding figures include Professor Uwe Kehler (Asklepios Klinik Altona) and Professor Paul Kremer (Asklepios Klinik Nord), both of them renowned experts for brain metastases, the pulmonary surgeon Dr Stefan Meierling (Asklepios Klinik Harburg) for lung metastases, the spinal surgeon Professor Thomas Niemeyer (Asklepios Klinik St. Georg) for bone metastases, and Professor Karl-Jürgen Oldhafer and his team from Asklepios Klinik Barmbek, who enjoy an outstanding international reputation for the operative treatment of liver metastases and others.

Ideally coordinated, interdisciplinary cooperation between all medical professionals – from diagnosis and proposed therapies, to treatment, after-care and psychological support – are crucial factors in the treatment of metastasising cancer.

The Asklepios Tumour Centre Hamburg can draw on a large number of experienced specialists from all disciplines, as well as excellently equipped clinics, and is therefore perfectly prepared for even the most complex cases. Customised medicine, which means tailoring the treatment to suit the individual patient, is another important element at the Tumour Centre Hamburg. It takes elaborate diagnosis of the tumour tissue and particularly extensive experience on the part of the physician to identify the best possible medicine.



The surgeon uses a panel to control the robot arms with extreme precision. *Photo: Asklepios*



The four arms on the state-of-the-art surgical robot da Vinci Xi offer greater flexibility compared with rigid endoscopes or the hands of a surgeon. *Photo: Asklepios*

## ENDOPROSTHETICS

### Joint repair, micro-invasive procedures, precision navigation: High-tech procedures are making joint surgery increasingly conservative

Wear-related joint complaints of the hip or knee afflict 15 million people in Germany alone – and the numbers are rising due to an increase in general life expectancy and the rigours of an active life in old age. More than 200,000 hip joints and 150,000 knee joints are replaced with prosthetics each year in Germany. Professor Joachim Grifka, director of the Orthopaedic Clinic at the University of Regensburg in Asklepios Klinikum Bad Abbach, is among the pre-eminent specialists in this field. Patients now come to the spa resort in Lower Bavaria from all over the world to have their worn joints replaced by Professor Grifka and his team.

#### Early arthritis: Joint repair instead of replacement

It is not always necessary to fit a joint replacement straight away. Professor Grifka is one of the leading international experts for procedures to preserve the hip as well. Before fitting a prosthetic in place of a joint, he will first exhaust the possibilities of alternative treatment methods. For instance, Professor Grifka and his team in Bad Abbach have developed the so-called arthroplasty procedure, a minimally-invasive surgical technique for joint remodelling that significantly reduces joint wear and can delay the need for a hip replacements by a substantial period. In this procedure, the surgeon removes painful obstructions that can be caused by damage to the cartilaginous joint lip or osseous bulges, reshaping the joint in such a way that replacement can be delayed. Sport injuries to the knee, elbow or upper ankle in particular can involve damage to the cartilage, which Grifka repairs in suitable cases by transplanting endogenous cartilage cells or stem cells.



Asklepios Klinikum Bad Abbach

Photo: Asklepios

#### MicroHip: Back on your feet the day after the operation

Innovative, particularly gentle surgical procedures now enable extremely rapid recovery. Professor Grifka is one of the pioneers of this method, and his clinic is ranked among the leading centres of minimally-invasive hip surgery in Europe. For instance, the MicroHip procedure developed in Bad Abbach is used to replace the hip through a small incision in the skin, without general anaesthetic or damaging the musculature, and with only insubstantial blood loss. The conservative method means that patients usually do not experience any pain after the procedure. They are able to get up the day after surgery and even climb steps – using a walker – after only eight days.

#### Precision navigation: Ideal function of artificial hip and knee joints

Precisely positioned joint prosthetics have a vastly improved capacity to replace the natural joint. Professor Grifka and his team have defined an entirely new benchmark with the development and establishment of computer-assisted precision navigation for the safe positioning of joint components. Complications such as impingement or luxation can be avoided using precision navigation, and implants fitted using this method will sit correctly in 95% of all cases.

## ORTHOPAEDICS / ENDOPROSTHETICS

### Smart idea: How Asklepios specialists detoxify harmful hip replacements

They are considered particularly durable and were therefore implanted in younger, physically active patients in particular: artificial hip joints made of a cobalt/chromium alloy with a large joint head and so-called resurfacing prosthetic made of the same material. There was no reason to expect a susceptibility to wear issues like with traditional plastic prosthetics made of polyethylene or the material fractures encountered among the metal prosthetics that were used in the 1990s. When developing the materials, though, the engineers underestimated the risk that the friction between the sliding metal surfaces might lead to the erosion of fine metal particles, which in turn could precipitate a dangerous rise in metal ion concentration in the blood and hence potentially damage the heart and the kidneys in particular. Moreover, femoral neck fractures or incidences of implants loosening in the bone are more frequent among metal prosthetics, as the metal ions can damage the bone tissue.



Photo: Zimmer Inc., Warsaw, Indiana, USA

#### Dilemma for patients

Although the manufacturers withdrew the affected prosthetic models from the market after these problems surfaced in 2010, thousands of wearers of the implants remained (in fear of gradual poisoning). Experts from the Medicines and Healthcare Regulatory Agency (MHRA) in the United Kingdom call for the blood of patients fitted with a metal/metal prosthetic to be screened for heavy metal ions. Here, a haemoconcentration of cobalt ions below 2 µg/l is considered uncritical, while any levels above 7 µg/l is harmful in all cases. Patients with values above 2 µg/l face the decision of living with a potentially toxic item in their bodies or of undergoing a second operation to replace their prosthetic joint for a model with ceramic coating. This will inevitably lead to the loss of bone material that would be important for a downstream prosthetic replacement, which is a significant problem for young patients especially. After all, while a head surface on the femoral neck plate can be replaced



Surface replacement, type Durom Hip®

Photo: Zimmer Inc., Warsaw, Indiana, USA



Asklepios Westklinikum Hamburg

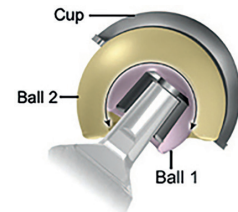
Photo: Asklepios

# ORTHOPAEDICS / ENDOPROSTHETICS



Tripolar socket, type Avantage

*Biomet Inc., Warsaw, Indiana, USA*



easily using a traditional shaft prosthetic, implanting a new acetabulum is far more complex, as the hip bone is so delicate that a repeated replacement is not possible in many cases.

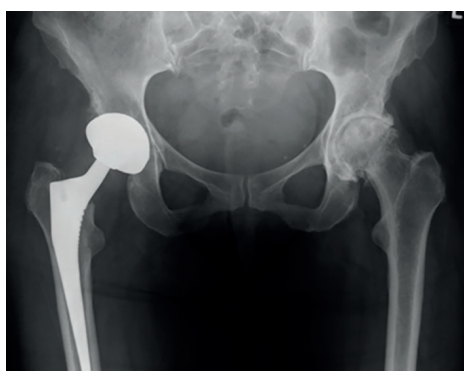
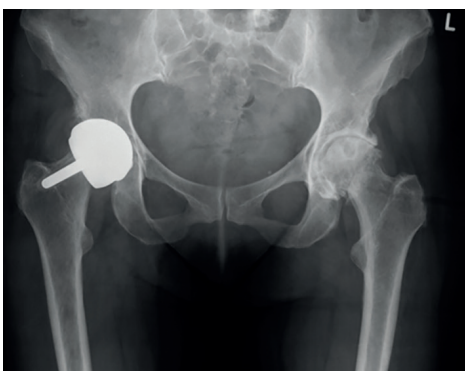
### The solution: Remodelling instead of replacement

The joint specialists PD Dr Oliver Niggemeyer and Dr Wolfgang Herzberg from Asklepios Westklinikum in Hamburg have developed a way out of this dilemma that is as smart as it is conservative: they leave the fixed

socket where it is in the body, using it as a basis to insert what is known as a tripolar socket. This mobile polymer pan transforms the metal/metal into a plastic/metal pairing like those used around the world for around the last 50 years. The protective polymer layer halts the metal erosion in the joint, lowering the heavy metal ion concentration in the blood just as fast as with a complete replacement of the joint.

But this procedure does not interfere with a downstream replacement of the joint prosthetic, as the conservative method by

the Asklepios experts preserves the intact joint socket.



X-ray image of a 51-year-old woman before and after the second procedure on the hip joint



## TITLE-WINNING



The title-winning Asklepios Klinik Barmbek in Hamburg

*Photo: Asklepios*

### Asklepios Klinik Barmbek is the 'World's Best Hospital for Medical Tourism'

The Medical Travel Quality Alliance (MTQUA) awarded the Asklepios Klinik Barmbek in Hamburg the title of 'World's Best Hospital for Medical Tourism'. It confirms that in addition to the quality of medical treatment, patients from outside Germany also enjoy outstanding service and support.

The Medical Travel Quality Alliance is an independent international organisation

that advocates the establishment and promotion of the highest standards of quality in medical tourism. Every two years, the organisation publishes a list of the hospitals that show a particular ability to satisfy the special requirements of international patients. Asklepios Klinik Barmbek was already ranked in the top ten last year, but has now taken top spot. MTQUA describes the Hamburg clinic as an "outstanding hospital for medical tourists".

The number of private patients seeking treatment in the Asklepios Kliniken in Hamburg has more than doubled since 2009. Here, the patients come from a variety of countries like the Arabian peninsula or Russia and the CIS. Increasing numbers are coming to

Hamburg as high-quality medical services are unavailable or scarce in their own countries. Additionally, the German medical sector as a whole and many chief physicians at Hamburg's Asklepios Kliniken in particular enjoy an outstanding reputation abroad. What's more: There is a close cooperation with the prestigious Hotel Atlantic, ensuring that accompanying relatives find accommodation in a suitably high-standard hotel and are able to enjoy a break in the Hanseatic city. Hospitals like the Asklepios Klinik Barmbek have accommodated the individual needs of their non-German patients, for instance by opening a dedicated international office that exclusively handles enquiries by patients from other countries.



## Centres of endoprosthesis treatment with particular expertise



Photo: Asklepios

- Asklepios: acute-care clinic for somatic diseases
- ▲ Asklepios: specialist clinic for psychiatry
- Asklepios: post-acute/rehab clinic
- Asklepios: other healthcare facilities (including day-care hospital, psychiatric outpatient clinics (PIA), health centre, care facility)

\* Facility under management

- MediClin: acute-care clinic for somatic diseases
- ▲ MediClin: specialist clinic for psychiatry
- MediClin: post-acute/rehab clinic
- MediClin: other healthcare facilities (including day-care hospital, health centre, care home)

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## Video interview:

Video introducing the Tumour Centre Hamburg:

[www.youtube.com/watch?v=dcc0IpBD564](http://www.youtube.com/watch?v=dcc0IpBD564)

An interview with Professor Graichen about arthritis:

[www.youtube.com/watch?v=nqtGgDoHJek](http://www.youtube.com/watch?v=nqtGgDoHJek)

PD Dr Marc Schult is asked when a hip or knee operation is necessary:

[www.youtube.com/watch?v=pSs8AWLAHcE](http://www.youtube.com/watch?v=pSs8AWLAHcE)