

Welcome



to Asklepios Klinik Altona





Department for Orthopaedics , Trauma- and Spinal Surgery

Accidents can occur at any time and affect anyone. Depending on the complexity and severity, their treatment requires the cooperation of various specialist disciplines.

All injuries are treated in the Department for Orthopaedics, Trauma- and Spinal Surgery: outpatient or inpatient, conservative or operative, based on decades of proven techniques as well as state-of-the-art innovations meticulously adapted to individual requirements. In the Asklepios Klinik Altona, medical experts from almost all other specialist disciplines are available for concerted treatment. The Department is certified as a Supra- Regional Trauma Center.

- **Treatment of Seriously Injured Patients (Polytrauma)**
- **Treatment of Bone Fractures and Joint Injuries**
- **Treatment of Spinal Injuries**
- **Joint Replacement**
- **Joint Endoscopy (Arthroscopy)**
- **Hand Surgery**
- **Corrective Operations for Malpositions**
- **Sports Traumatology**
- **Tumor Surgery in cooperation with our Oncological Center**
- **Outpatient Surgery**
- **Osteoporotic Fracture Therapy**
- **Treatment of Workplace Injuries**
- **Outpatient Emergency Treatment**
- **Physiotherapy**



Chief Physician:

Prof Dr Markus Kröber

Tel.: +49 (0) 40 18 18 81 - 16 20
m.kroeber@asklepios.com

Private Consultation:

Ms. Kroos
Tel.: +49 (0) 40 18 18 81 – 16 21

Monday-Thursday 9.00 a.m.–4.30 p.m.
Friday 8.00 a.m.-2.30 p.m.

***Appointments for Medical Consultation
for Diseases of Bones and Joints, as
well as Consultation for Sport Injuries
and Hand Ailments:***

Ms. Pein
Tel.: +49 (0) 40 18 18 81 - 16 25

Monday-Friday 8.00 a.m. - 12.00 a.m.

Treatment of Seriously Injured Patients (Polytrauma)



The treatment of patients after serious accidents is a particular challenge.

Due to the frequent occurrence of injuries to various parts of the body and the organs, many specialists have to work in coordination.

Time is the primary factor for the life-saving measures: the most important diagnoses have to be made as quickly as possible.

The Asklepios Klinik Altona is part of the Hamburg Trauma Network and is certified as a supra-regional Trauma Center. This is the highest standard for the treatment of trauma in accordance with the White Paper of the German Association for Trauma Surgery.

Exacting demands are made: a comprehensive team of specialists has to be available round the clock on 365 days in the year. It goes without saying that a helicopter pad and an ambulance approach must be the norm.

An extensive shock room with life-saving equipment as well as a modern Computer Tomograph (CT) is located in our Central Emergency Department (ZNA: Zentrale Notaufnahme). Here, images of the injured body areas can be quickly generated in order to secure the primary diagnoses in the shortest possible time.

A laboratory with a blood bank, an Intensive Care Unit and operation rooms are essential for further treatment.



Treatment of Bone Fractures and Joint Injuries



The major part of the operations performed in our Department deal with fractures of the bone with or without injury to the joints.

The patient is usually admitted to the Central Emergency Department in our clinic immediately following an accident. After inquiries and examination, the diagnosis is speedily ascertained by means of X-ray images.

Further treatment depends on the type of fracture: Is an immediate operation necessary, or is it possible to wait? Is an operation even required? Is the patient to be treated in hospital or is outpatient treatment possible? All these questions receive competent clarification. At the same time, pain is alleviated.

A team of anaesthetists is available round the clock for emergency surgery. Less urgent cases are planned for the following day and, when desired, can receive outpatient care.

The comprehensive expertise of our specialist departments is at hand to prepare patients with a history of severe pre-existing illness.

Whether millimeter-thin plates and screws for fractions of the finger, or centimeter-thick nails and plates for bone fractures, in all cases state-of-the-art therapy options are implemented. Cutting-edge implants and materials, together with procedures and techniques backed by time-proven experience are deployed and tailored to each individual case.

Treatment of Spinal Injuries



In our clinic, diseases and injuries of the spine are treated within the framework of the Spinal Center Hamburg Altona.

The expertise and experience of Trauma Surgery and Orthopaedics as well as Neurosurgery are at hand to give the patient the necessary care. When the patient's bones are healthy, injuries to the spine are usually the result of serious accidents. The treatment demands particular caution as the spinal cord and nerve roots are immediately adjacent to the vertebrae.

In addition to conventional X-Ray equipment, modern Computer Tomography (CT) and Magnetic Resonance Tomography (MRT) are available to secure optimal preparation. Two Image Converters are generally deployed during the operation, with the possibility of a three-dimensional reconstruction of the images where necessary.

Minimal invasive procedures are standard, as well as the deployment of an operation microscope for operations on the spinal cord.

If the bone is not healthy – for example as a result of osteoporosis or a bone tumour – a fracture of the spine can occur without a preceding injury. Here, too, a thorough diagnosis is crucial as many cases show that major surgery is unnecessary. It is often sufficient to fill the broken vertebra with cement in order to treat the pain. This minimal invasive procedure (Vertebroplasty) can be carried out under a local anaesthetic. If it is also necessary to correct the form of the vertebra at the same time as the cement filling, then the operation (Kyphoplasty) is performed under a general anaesthetic in the operating room.



Joint Replacement



Painful abrasion can result after injury or inflammation of the joints. More often, however, this occurs without recognisable cause.

A joint replacement (Endoprosthesis) can often provide relief in the case of persistent discomfort.

Our Consultation Hours offer comprehensive advice regarding the possibilities of modern joint replacement and available alternative treatment. We also give advice on obtaining a second opinion or in clarifying discomfort with an existing prosthesis.

Our Department routinely performs replacement operations for hip-, knee-, shoulder- and finger-joints in low-impact, modern procedures using proven joint prostheses of recognised manufacturers. Where required, the operation planning is individually computer-supported for each patient.

Problems with an existing prosthesis (dislocation, loosening, or inflammation) can be treated by correcting the cause or through a replacement operation. Such major surgery demands a well-attuned team as well as coordinated post-operative treatment.

This must be oriented to the needs and performance level of the individual in order to attain an maximum functionality of the new joint. Information regarding optimal preparation of the operation, instruction for post-operative procedure and advice for 'daily life' with the new artificial joint can be found in the patient brochure of our Physiotherapy Department.



Joint Endoscopy (Arthroscopy)



In general, injured or diseased joints can be treated via an arthroscopy (joint endoscopy/ MIS: Minimally Invasive Surgery: 'keyhole surgery'). By means of a small skin incision, a camera system is inserted into the affected joint. Further small skin incisions form an entrance for the instruments. In many cases, sophisticated surgical techniques allow damage and injury to be identified, and where necessary, repaired.

Shoulder Joint

If the shoulder joint is dislocated, there is the danger of permanent instability which can lead to more rapid abrasion of the joint. This is due to a tear in the tissue surrounding the joint socket. This damage can be best repaired with a low-impact arthroscopy. At the same time, accompanying injuries to the tendons, ligaments and capsule can be diagnosed and treated. The diagnosis of chronic damage to the muscle and tendon cuff (rotator cuff) or other complaints resulting from abrasion can also be ascertained by means of an arthroscopy.

Elbow

Long-term effects of injuries (limitation of movement) or a joint mouse offer a promise of success and are good reasons to implement an arthroscopy/operation.

Wrist

Torn tendons between the carpal bones are not easy to diagnose after an accident in spite of extensive examinations using X-ray and MRT imaging. An arthroscopy of the wrist can bring clarification and define appropriate therapy. In the case of chronic pain, an arthroscopy allows an evaluation of the structures within the joint and can also relieve the symptoms (for example: partial removal of the irritated mucous membrane or smoothing the Discus Triangularis). Such procedures are performed by our specialist team of hand surgeons.

Knee Joint

Cruciate ligament- and other ligament-, cartilage- or meniscal injuries as well as some types of fractures of the knee joint are within the domain of arthroscopic surgeons: cruciate ligament replacement with a tendon graft or stitching an injured meniscus are procedures regularly carried out in our department using state-of-the-art instruments. Whereas the body weight may not be fully exerted on the knee after repair to the meniscus, a cruciate ligament replacement requires intensive physiotherapy. Appropriate post-operative exercises are initiated by our resident physiotherapist. Chronic damage to the knee can often be relieved by means of arthroscopic treatment of the mucous membrane, cartilage or meniscus.

Ankle

After injuries, complaints caused by scars or a joint mouse can frequently be relieved by means of an arthroscopy. Damage to the cartilage or osteochondrosis dissecans are also ailments which can be similarly alleviated. Various treatments including transplantations of cartilage and bone tissue are available.

Hand Surgery



The function of the hand is unique: it is very flexible but can also move heavy objects with a firm grip. In addition, it has finely-tuned tactile sensitivity. This is possible because the hand and the fingers have the required anatomical structures such as bones, tendons, nerves and blood vessels occurring in close proximity which – although in parts very small – are able to perform their functions optimally.

These characteristics must be given particular consideration when treating injuries or diseases of the hand. The delicate structures require the deployment of magnifying glasses, or even a surgical microscope. Implants (titanium) to treat broken bones must be very small but nevertheless offer sufficient stability. Post-operative care also requires a special physiotherapeutic concept.

Our Department offers the complete spectrum of hand surgery. In cases of emergency, patients are admitted via the Central Emergency Department. Less urgent or elective treatment is planned in our Hand Consultation Hours. We offer treatment of the following clinical symptoms and injuries:

- Nerve Compression Syndrome (carpel tunnel syndrome, sulcus nervi ulnaris syndrom)
- Trigger Finger and other diseases of the tendons and tendon sheaths
- Arthritis of the carpometacarpal joint of the thumb (Rhizarthritis) and the finger joints
- Correction of the results of injury (for example: motoric replacement operations, corrective osteotomies, denervation)
- Dupuytren's Disease
- Ganglia
- Tumours of the hand
- Fractures of the bones of the fingers, the metacarpus, carpus, and underarm
- Injuries to the ligaments of the hand
- Injuries to tendons
- Injuries to nerves and blood vessels
- Inflammation of the hand
- Amputation



Corrective Operations for Malpositions



Over years, injury, chronic abnormal biomechanical stress, inflammation or congenital malformity can result in considerable discomfort and limitations regarding the patient's quality of life. A corrective operation offers the possibility of relief. In advance, the benefits and risks are clearly defined and weighed one against the other. Alternative treatment, such as joint replacements, should also be considered.

Correction of the Mechanical Axis

Bow legs or knock knees result in a misdirected mechanical stress which causes strain on the inner and/or outer knee joint. A correction of the mechanical axis allows a more favourable distribution in the knee joint and slows down painful abrasion. An operation can afford relief should such symptoms already be present. The possibility of a joint replacement should be considered before planning an operation.

Malformed Ossification of Fractures in Different Locations

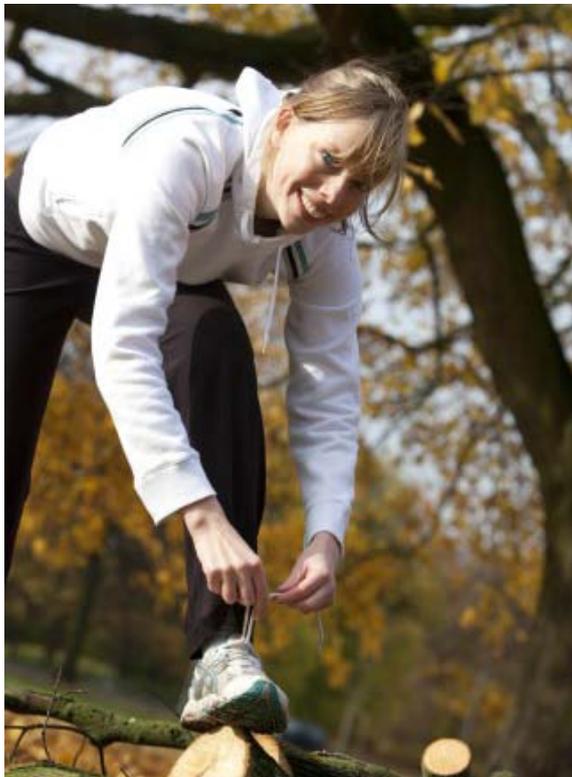
Even after optimal treatment, bone fractures can result in a malposition of the axis or the joint. In the case of discomfort

and functional limitations, various measures can be considered depending on the bone or the joint: In the shaft area, the axis of the bone and/or its length can be corrected; joints can either be replaced (endoprosthesis) or stiffened (for example the lower and/or upper ankle joint); or the pain-bearing nerve fibers can be cut (denervation, for example in the wrist). Prior to such an operation it is essential to carefully weigh the effort and risks against the prognosis for functional improvement and relief of discomfort.

Malposition of the Ball of the Foot and the Toes

Hallux Vagus can lead to a deviation of the great toe in the direction of the little toe (*Digitus minimus pedis*) which imposes strain on this joint and the adjacent soft structures. The prominently protruding ball of the great toe is painful. Depending on the form and extent of the malposition, either a conservative treatment or an appropriate operation is recommended. Hammer toes, claw toes, Metatarsalgia Taylor's bunions are further clinical cases which need surgical treatment.

Sports Traumatology



In addition to the supply of acute injuries in sports, e.g. shoulder injuries (rotator cuff tears), luxations, ligamentous ruptures (cruciate ligaments, achilles tendon ruptures, ankle ligamentous lesions, biceps tendon rupture), offers the specialization in sports traumatology optimum conditions even for the treatment of chronic sequelae.

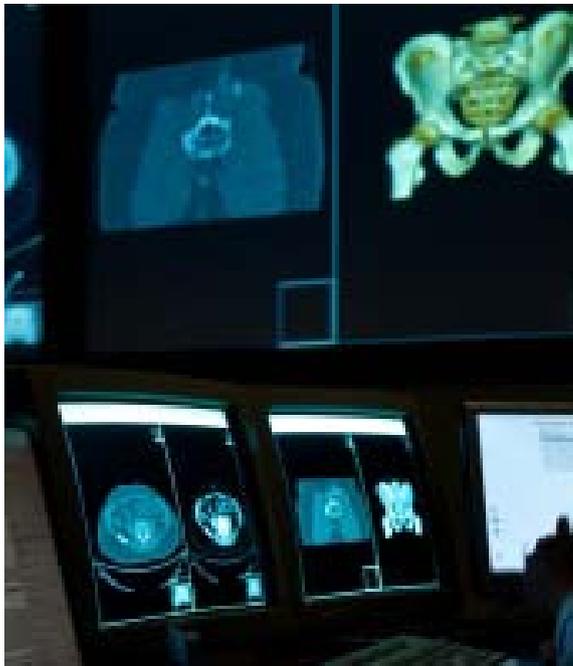
If there is a mismatch of capacity and load, pathological reactions of the musculoskeletal system are the result. These are often not easy to diagnose and to treat only differentiated, since not all the symptoms are clear.

For this reason, the close integration of sports medicine and traumatology is a prerequisite for professional therapy. Apart from the exact medical history and detailed physical examination, diagnostic procedures such as X-ray apparatus, computer tomography and magnetic resonance imaging (MRI) help to identify the causes of ailments.

The close integration of in-house physiotherapy directly following surgical treatment leads to optimal conditions for a complication-free healing process.



Tumor Surgery in cooperation with our Oncological Center



In cases where it is unsure whether or not tumors in the musculoskeletal system are benign, treatment in our clinic follows in close cooperation with the Oncological Center.

Where the diagnosis of the underlying condition is unsure, surgical procedure is usually necessary (biopsy). Preceding the biopsy, other findings are discussed in the so-called Tumor Conference together with the experts from the Oncological Center, and the subsequent procedure is planned. Another presentation in the Tumor Conference follows when the results of the biopsy are available, and the plan of treatment is laid down: How extensive should surgery be? Is post-operative chemotherapy and/or radiotherapy necessary? Which chemotherapy is indicated?

When tumors consist of bone or tissue which has developed directly from this point of the musculoskeletal system, complete removal can sometimes require a major operation where a subsequent limitation of functionality must be taken into account. In some cases, corrective operations can compensate these disabilities.

Metastases in the bones deriving from tumors elsewhere in the body are often painful and can lead to fractures. In order to treat the pain and to stabilise the bone, various minimal invasive procedures are available. Sometimes a joint replacement cannot be avoided. In addition, the tumor is treated with medication (oncological) and/or radiation.

Outpatient Surgery



In our department, most operative procedures on the hand, minor arthroscopy or removal of tissue are carried out as outpatient operations. Both general as well as regional or local anaesthesia are possible. The prerequisite for outpatient operations is that the patients have no serious pre-existing illness; that they are not alone at home after the treatment, and that no complications are to be expected.

The procedure and organisational details are explained in the doctor's consultation prior to the operation. The anaesthetist is also included in this pre-operational discussion in the case of a general anaesthetic or a regional anaesthetic carried out by the department for anaesthesiology.

Operations under general or spinal anaesthesia:

It should be considered on the day before the operation that the admission on the following morning should be on an empty stomach. On the day of the operation, the patient arrives at 7.00 a.m. at our outpatient centre on the ground floor of our clinic. The documents are re-checked, a name tag attached and

the respective arm or leg marked with a coloured cross (security check). The patient is prepared for the operation and finally put to bed in the surgical wing. After the operation, the patient remains in the outpatient centre until the effects of the anaesthetic have completely worn off. Should more time be required, the patient can be transferred to a ward. Required X-rays are carried out in the X-ray department. After a final consultation with the surgeon, the patient is discharged. Sufficient pain medication and information regarding emergency procedure as well as a doctor's report are provided.

Operations under regional anaesthesia of the arm or hand or local anaesthesia:

In order to avoid lengthy waiting periods, the exact time for admission on the following day should be requested on the day prior to the operation before 4.00 p.m. under the telephone number 040/181881-3020. Strict adherence to the instructions regarding intake of food is essential (last meal should be latest 10.00 p.m. on the operation eve). The patient should come to the outpatient centre on the ground floor of our clinic. Here the documents are re-checked, a name tag attached and the respective arm or leg marked with a cross. The patient is prepared for the operation and then transported to the surgical wing. On returning to the outpatient centre after the operation, the patient may immediately eat and drink. Required X-rays are carried out in the radiology department. When the effects of the anaesthetic have completely worn off, the patient is discharged following a concluding consultation with the surgeon. Sufficient pain medication and information regarding emergency procedure as well as a doctor's report are provided.

Osteoporotic Fracture Therapy



Osteoporosis is a deterioration of the bone quality.

A contributory cause can be a change in hormone production which means that mainly women aged 60+ are affected. Other reasons, such as the widespread deficit of Vitamin D or long-term intake of certain medication which disturbs resorption via the stomach also play a part.

Sometimes, osteoporosis is only recognised when the person affected suffers a bone fracture. A possible medicinal therapy would be too late to treat this fracture, and the surgeon faces the challenge of stabilising a fracture where the bones themselves offer little stability.

Thanks to modern implants, however, treatment is possible in this situation: Zones of the bones which still offer support in spite of their poor quality are used as an anchor. By means of fixed-angle connectors, the considerably weakened bones in the area of the fracture are supported and can heal. In addition, the bones can be further stabilised by injecting bone cement.

All these procedures are deployed in our Department, adapted to the individual condition of each patient. Bone Density Measurement (BDM/DEXA) assist in estimating the degree of osteoporosis and the required accompanying therapy. In addition, appropriate pain therapy is initiated.

Treatment of Workplace Injuries



Prof. Dr. med. Markus Kröber is the resident Accident Insurance Consultant in our clinic, licensed for all injury procedures. This means that patients with workplace- or commuting accidents may receive comprehensive treatment and care in our clinic irrespective of the severity of the accident.

This allows the Employers' Liability Insurance Association (BG) to ensure that the overall care of the injured person – admission, operation, inpatient post-operative treatment, outpatient aftercare as well as expertise regarding permanent disability resulting from the injury – remain in one hand, if so desired.

After a workplace accident, the First Aid is carried out in the Central Emergency Department of our clinic. Here the decision is taken regarding the necessity of either inpatient or outpatient treatment, and the respective Employers' Liability Insurance Association (BG) is informed of the accident. Where required, subsequent rehabilitation after the operation or conservative treatment is planned and implemented in timely cooperation with the Employers' Liability Insurance Association (BG).

After being discharged from the hospital, or in the case of outpatient treatment, further medical care is performed during the medical consultation hours of the Association. Appointments are given by telephone through the Association's Outpatient Department which is responsible for further organisational procedures such as sick notes, medical certificates, prescriptions, correspondence with the Association, the organisation of appointments for medical examinations as well as obtaining a second opinion).

Outpatient Emergency Treatment



Emergency cases are admitted to our clinic via the Central Emergency Department.

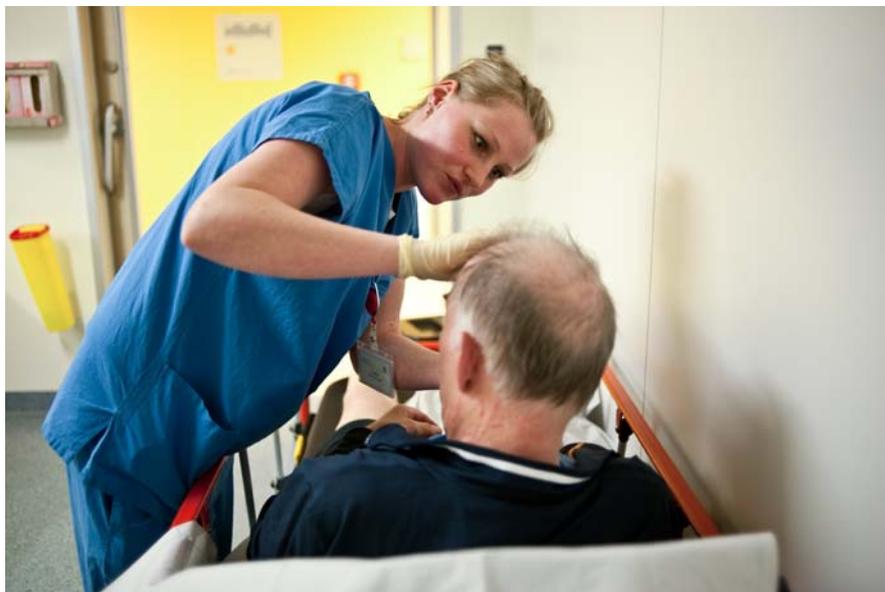
Here the decision is taken regarding further care, whether outpatient treatment is sufficient, or if it is necessary for the patient to be treated in hospital. X-ray, sonographic and computertomographic (CT) imaging is available in situ.

The experienced colleagues in our department support the staff in the Central Emergency Department round the clock, also with regard to outpatient treatment.

If an operation is required subsequent to the outpatient emergency treatment, arrangements for a later appointment are made in our Consultation Hours (in the Outpatients' Center on the 1st floor of our clinic).

The operation procedure is discussed and the required anaesthesia is planned.

Additional examinations (for example MRT) can also be arranged.



Physiotherapy



The success of an operation depends on subsequent individually tailored physical exercise.

The experienced team of physiotherapists implements the physiotherapy advised by the surgeons, often on the first day after the operation.

Appropriate pain therapy allows physical movement in spite of the sensitivity of the wound.

At the same time, the exercises prevent post-operative complications such as thrombosis, pneumonia and pressure sores.

In addition, healing can be supported by physical measures (warm/cold applications) or manual lymph drainage.

