OTHER SERVICES IN OUR PRACTICE

- **Acupuncture**
  For joint/back pain, tendon and muscle pain, arthritis/strain injury, migraine/tinnitus, smoking cessation, weight reduction and hay fever prophylaxis

- **Computer-assisted, digital foot pressure measurement**
  For fitting of custom-made orthopaedic shoes and insoles to treat defective statics in the foot, congenital and acquired deformities of the foot, heel spurs, plantar fasciitis, pain in the knee, hip and spine

- **DEXA Bone Densitometry**
  For early diagnosis and monitoring of osteoporosis, especially in cases of hormone deficiency, lack of physical activity, fractures, chronic back pain, smokers, diabetes mellitus, chronic gastric and intestinal diseases and underweight

- **Extracorporeal Shockwave Therapy (ESWT)**
  With low-energy, focussed sound waves, e.g. for tennis-/golf elbow (epicondylitis), shoulder pain (tendinosis calcarea), heel spur/plantar fasciitis, chronic irritation of the patellar and Achilles tendons, bursitis, muscular tension (myalgia) and delayed healing of bone fractures (pseudarthrosis)

- **Cartilage Protection Therapy**
  Cartilage regeneration with hyaluronic acid to treat cartilage damage in all large and small synovial joints due to injury or wear-related degeneration

- **Milgamma**
  Intramuscular injections of Vitamin B1, B6 and B12 to strengthen the body systems (roboranit) and for nerve inflammation (neuritis), nerve pain (neuralgia), polynneuropathy (e.g. due to diabetes, alcoholism, etc.), muscle pain (myalgia), root irritation syndrome in the spine (radicular syndrome), shingles (Herpes Zoster) and facial nerve paresis

- **Special Pain Therapy (PRT)**
  CT-guided injections for patients with disc problems and chronic back pain

- **Zeel Injection Therapy**
  Homeopathic cartilage stimulation to improve its firmness and gliding quality in patients with osteoarthritis and rheumatic pain

HOW TO FIND US

![Map of OrthoClinic Hamburg locations](image)

Our Practice in Schnelsen
Holsteiner Chaussee 305  |  22457 Hamburg
Phone: 49(40) 550 12 14  |  Fax: 49(40) 550 75 82
info@orthoclinic-hamburg.de

**Opening Hours**
Monday–Wednesday  |  9.00 a.m. – 6.00 p.m.
Thursday  |  8.00 a.m. – 7.00 p.m.
Friday  |  9.00 a.m. – 2.00 p.m.

Our Practice in the Evangelisches Krankenhaus Hamburg Alsterdorf
Elisabeth-Flügge-Straße 1
22337 Hamburg
Phone: 49(40) 507 732 33
Fax: 49(40) 507 749 71

Gait Analysis/
Laboratory Running Tests

Innovative technology to monitor gait and running patterns

Individual Health Services (IGeL)

MORE INFORMATION: 49(40) 550 12 14

WWW.ORTHOCLINIC.HAMBURG

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Dear Patient,

Just like all other parts of the body, the skeletal and locomotor systems also need a regular check-up. Unfortunately, we often do not notice that something is wrong until we feel pain when walking, standing or during sporting activity. There are many possible causes, e.g. unsuitable or worn-out shoes, malposition of the feet, ankles, knees, legs or hips, muscular dysbalance or functional weaknesses, and many more. Malposition leads to poor and incorrect posture, and individual strain limits are soon exceeded.

To improve posture, performance and economy of movement we recommend video-assisted gait and running analysis. First, the body and joint axes which are to be examined are marked. These marker points make it possible to identify, analyse and treat any malpositions and causes of pain.

The patient’s movement on the treadmill is then recorded by means of four synchronised digital cameras. Then a slow-motion study is carried out to monitor the gait and running patterns and thus to identify any possible defective positions in the joints including the spine. A special video analysis software enables us to measure and evaluate your body angle and compile an individual biomechanical profile of your body.

**GAIT/RUNNING ANALYSIS**

**The Three Analysis Modules**

**ANALYSIS MODELS**

**BASIC ANALYSIS**
- Foot, lower leg and ankle with special attention to pronation and rolling movement of the foot, e.g. for:
  - Foot/ankle pain (hallux valgus (bunions), heel spurs, ligament injuries, ankle instability)
  - Advice concerning sports and running shoes
  - Fitting of custom-made orthopaedic shoe insoles
  - Nordic Walking beginners

**STANDARD ANALYSIS**
- Foot, knee and leg axis. In addition, the rotation of the tibia, the dynamic leg axis position, stability of the pelvis and the movement pattern of the knees are analysed and advice given regarding running style. For:
  - Knee pain (osteoarthritis, before/after operations, <runner’s knee>)
  - Achilles tendon and shinbone (tibia) pain (e.g. <shin splints>)
  - Thigh pain
  - Running sports beginners

**PREMIUM ANALYSIS**
- Foot, knee, leg axis and back. This analysis also includes the pelvis, back, upper part of the body and spine, and thus provides detailed information about the kinematics of the entire body. The data gathered during the standard analysis are supplemented by examination and angle measurement of the entire leg axis, the pelvis and the spine as well as by dynamic recording of data relating to the upper body and back. For:
  - Pain in the lumbar spine and lower back
  - Hip pain (e.g. dysplasia, osteoarthritis, bursitis)
  - Therapy-resistant problems
  - General orthopaedic and muscular balance problems
  - Ambitious runners und marathon participants

**INDIVIDUAL CONSULTATION**

**We take time for you**

[Pictures: © Shutterstock]

Dr. med. W.-P. Niedermauntel
Prof. Dr. med. A. Katzer
Jörg Rump

High-resolution, high-speed video cameras capture the treadmill from all directions. The subsequent video analysis breaks down the documented movements into very small elements so that, depending on the version, the following critical points can be monitored:

- Gait and running style
- Muscular deficits
- Pelvic stability
- "Overcrossing" (steps crossing over the body’s midline)
- Leg axis
- Kinematics of the knee
- Positions and malpositions of the ankle

Based on the results of the gait/running analysis, and in consultation with the patient’s physician, special shoe insoles perfectly adjusted to the patient’s posture and movement are manufactured by a qualified orthopaedic technician. The technician selects the material and manufacturing concept which are most suitable for the patient’s intended use of the insoles (everyday activities, work, sports).

If the patient’s pain is caused by a muscular problem, an individual training plan, prescribed by an orthopaedic specialist, is compiled in co-operation with a qualified physio/sports therapist. Specific exercises strengthen the weak body regions and at the same time a stretching programme helps to mobilise the shortened muscles and stiffened fascia.