

UNIVERSITY CLINIC FOR VASCULAR AND ENDOVASCULAR SURGERY: UNIVERSITY HOSPITAL DUESSELDORF

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In our clinic we care for the full range of diseases of the vascular system. The clinic is pursuing a new integrative approach: specialists in the areas of operational vascular surgery, interventional treatment and conservative treatment work together in one unit. We start a gentle process for any single patient meaning to utilise, not only traditional surgical procedures, but preferring a minimal invasive route whenever possible.

The clinic's focus is the treatment of stenosis of the carotid artery, the outgrowths of the abdominal aorta (aneurysm), arterial occlusive disease of the pelvic and leg arteries (peripheral arterial disease, smoker's leg, diabetic leg). Since 1974 we have special expertise in kidney transplantation with one of the biggest programmes in the field in Germany. Shunt and access-surgery is our daily routine. In addition, we care for patients with venous disorders in our wound centre. Even rare diseases such as malignant tumours or vascular malformations are part of our range.

In our vascular clinic, we advise and treat patients who suffer from diseases of the vascular system. After a detailed examination, we

create therapeutic concepts, review the need for treatment and guide the patients after their therapy (surgery, intervention, medication or combination of the three). In our advanced wound centre we treat chronic, non-healing wounds such as diabetic feet.

The power spectrum of the Department of Vascular Surgery includes the conventional and endovascular therapy of all arterial and venous vascular diseases. These include reconstructive carotid surgery for stroke prevention, as well as endovascular and conventional therapy of abdominal and thoracic aortic aneurysms. Moreover, we perform aortic and peripheral bypass surgery for the treatment of peripheral arterial occlusive disease as well as shunt and access-surgery for dialysis. The University Clinic Duesseldorf develops and introduces aortic therapies in Europe, which are only available in other high standard clinics.

Increasingly, combined procedures (so-called hybrid methods) are used, in which minimal invasive catheter techniques and conventional vascular surgical procedures are applied simultaneously. This allows treating complex vascular lesions (e.g. multiple-AVK and aortic dissection) without broadening the surgical access trauma. Other important fields are shunt surgery in patients on dialysis and varicose vein surgery in an endoluminal procedure (foam-sclerotherapy) also as conventional methods (stripping surgery). Shunt and varicose vein surgeries are increasingly performed on an outpatient basis.

All patients are pre- and postoperatively advised in the interdisciplinary Vascular Center Duesseldorf. Advanced contrast Duplex sonography, CT and MRI investigations are carried out primarily on an outpatient basis, as is the preparation of anaesthesia at the Department of Anaesthesiology.

GERMAN AORTIC CENTER DUESSELDORF

Another focus of the clinical activity represents the elective and emergency treatment of aortic aneurysms, aortic dissections and atherosclerotic aortic occlusions. The aorta, rising from the heart and building up the lifeline of the whole body, is optimally treated by an interdisciplinary team. The German Aortic Center Duesseldorf incorporates specialists from vascular surgery, cardiac surgery, cardiology, radiology, specialised anaesthesiologists and even gene specialists in order to provide a comprehensive treatment offer for



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every single patient suffering from aortic diseases.

Meanwhile, the majority of all patients are treated by endovascular stent prostheses, a minimally invasive treatment. The modern, high-tech operating room instrumental equipment (remote high quality C-arm, automated infusion pump, online measurement of motor evoked potentials, carbon operating table) also allow complex treatments of the thoracic and abdominal aorta (thoracoabdominal aortic aneurysms). A combination of partially open and partially endovascular procedures (so-called hybrid intervention), as well as fully endovascular treatment (branched, fenestrated stentprosthesis), are available.

These procedures do not only significantly reduce the risk of perioperative paraplegia (spinal ischemia) but also minimise trauma in general and the length of hospital stay.

STROKE CENTER DUESSELDORF

An important focus is the treatment of stenosis of the extracranial internal carotid artery as stroke prophylaxis. In close cooperation with the Department of Neurology and the Departments of Interventional Radiology and Neuroradiology, optimal individual procedures are discussed. Waiting and observing, as well as stent angioplasty or surgical treatments are possible options. An external quality proving system (Aqua Institut) confirms the constant high standard of carotid lesions treatment at the University Hospital Duesseldorf year after year.

VASCULAR CENTER DUESSELDORF

Half of the patients suffering from peripheral arterial disease (PAD) are faced by possible limb amputation. Our treatments cover all stages of this disease. In order to prevent amputation these patients are discussed in detail in the interdisciplinary vessel colloquium

and will then be allocated the best possible therapy. We offer percutaneous dilatation and stenting of vasoconstriction, conventional bypass surgery, combined procedures connecting advantages of surgical methods (e.g. bypass surgery on the leg) with interventional measures (such as stenting of the iliac artery). In some cases medical treatment, or the combination of the above mentioned modalities, would help the patient.

The surgical treatment of varicose veins and chronic venous insufficiency is done on an outpatient basis or as a short stationary stay therapy. We have specialised physicians treating those patients without surgical measures but with foam sclerotherapy whenever possible.

SHUNT AND TRANSPLANTATION CENTER DUESSELDORF

Shunt surgery and catheters for dialysis (e.g. Demers, Ash-Split) are done in close consultation with the Nephrology Department. Potential secondary problems are managed interdisciplinary in cooperation with the Department of Radiology. Duesseldorf University provides one of the biggest kidney transplantation programmes in Germany. Since 1974 the Department of Vascular Surgery and the Department of Nephrology stand for extraordinary good results in this field. The unit has special expertise in living-related kidney transplantation, resulting in 100% kidney-function after one year in 2013.

All our efforts focus on the best treatment for the patients who are entrusted to our care. Individual treatment is warranted to every patient seeking help in our department. Together with our highly professional partners we concentrate on finding the most gentle treatment option possible. 🏥

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