

Interventional Neuroradiology

For our patients:

our therapeutic focuses at a glance



Interventional neuroradiologists

Interventional neuroradiologists are specialized in treating patients with diseases of the vessels of the brain and spinal cord. In interventional neuroradiology, we use therapeutic procedures that are minimally invasive via the vascular route using catheters. These procedures include vascular-opening and vascular-occlusive treatments.

Some diseases can only be cured by combining different therapeutic methods. In cooperation with the referring colleagues, the University of Jena cooperates closely with the participating disciplines of neurology, neurosurgery, vascular surgery,

neurooncology, radiation therapy, oral and maxillofacial surgery, and ear, nose, and throat medicine otorhinolaryngology for the counseling and treatment of these patients.

We are committed to providing the best therapy recommendations for your individual needs according to guidelines based on the latest scientific findings.

We have compiled an overview of our treatment focuses in this brochure. It aims to serve as a guide.

You as patient

As a patient, you are always at the center of our activities. We see you as a whole person, not just the disease.

We always tailor our therapeutic concepts with you individually to treat your illness and accommodate your personal needs.

Together with the colleagues of the respective disciplines, we will accompany you during the preparation and organization for your inpatient stay.

We have an ear for your worries and needs - during the personal consultation and during your hospital stay, but also beyond inpatient treatment.

Vascular-opening treatments

The expansion of constricted vessels and the reopening of closed vascular tracts serve to improve or restore cerebral blood flow. These methods are thus used to prevent and to treat stroke.

High-grade narrowing (stenosis) of the carotid artery, for example in the context of arteriosclerosis, can reduce blood flow to the brain, with sometimes serious consequences. Patients can benefit from enlarging the stenosis. While surgical treatment is preferable in older patients, in younger patients the affected vessel section can be expanded by means of a balloon and kept open by introducing a vascular prosthesis (stent).

An acute stroke due to a vascular occlusion constitutes an emergency. Our concept of treatment is based on a combination of immediate drug delivery to dissolve the clot and subsequent mechanical treatment via the vascular route as soon as possible. We use techniques that we have developed by which blood clots can be pulled out of the obstructed vessels or aspirated. For this treatment, an emergency team is available around the clock.



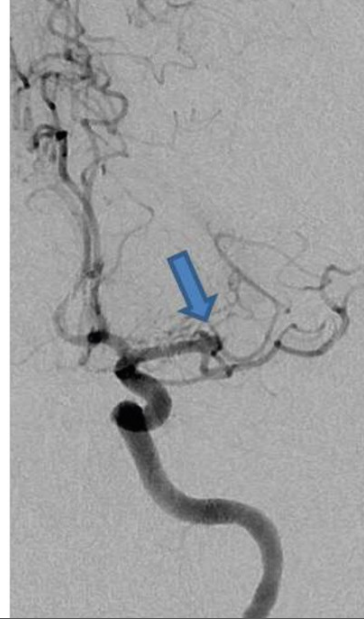
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Left: High degree of narrowing of the carotid artery (arrow) in arteriosclerosis.



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Right: Stent inserted after interventional treatment to dilate the narrowed section.



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Left: vascular occlusion in an acute stroke (arrow).



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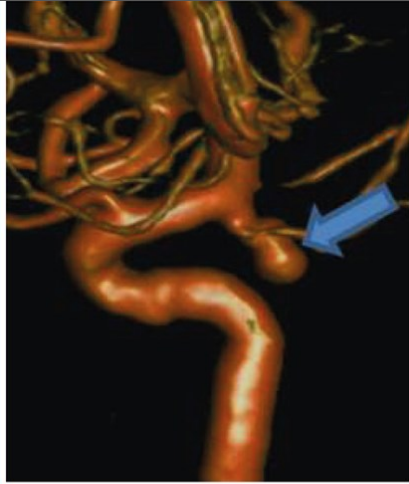
Right: reopening by aspirating the blood clot via the vascular route.

Vascular-occlusive treatments

In an emergency case of acute bleeding and also prophylactically to prevent cerebral hemorrhage, vessel diameters can be reduced via the vascular route. Vessels may also be occluded completely and aneurysms closed off. Different materials are used for these purposes, such as detachable metal coils, vascular prostheses (stent), flow diverters, particles, and liquid embolization material.

Both small and complex cerebral artery outpouchings (aneurysms) can be treated by neurosurgery (clipping) or by neuroradiological catheter treatment (coiling). For each patient, an interdisciplinary decision is made as to which treatment is preferable.

Some diseases can only be cured by combining different therapeutic methods. The treatment is then discussed in an interdisciplinary manner with specialists from radiotherapy, neurosurgery, neurology, and neuroradiology (neurovascular board).



Left: Vascular lump (aneurysm) (arrow) on the main artery.

Middle: 3D reconstruction to plan the intervention.

Right: elimination of the aneurysm by introducing platinum coils (coils).

Left: Dural arteriovenous fistula (dAVF) with a short-circuit connection of a carotid artery and the venous system in the head (arrows).

Right: Closure of the short-circuit connection.

Contact

We are glad to be here for you

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Please do not hesitate to contact us with any questions or suggestions. We will gladly give you information at any time.

Thank you for your interest.

To & From

Arrival by tram

Line 5, with direction connection to
`Lobeda-Ost`,
station `Universitätsklinikum`

Arrival by car

Motorway A4 Dresden-Frankfurt/M.;
follow the sign for `Jena-Zentrum` and
then for `Universitätsklinikum`

