

The medical indication for a HIFU-therapy of bone metastases occurs always in close cooperation with your attending oncologist or orthopaedist.

Please contact us if you wish to receive further information about this treatment method. We are happy to help you either by phone or after making an appointment during our consultation hours.

With kind regards,



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### » Journey and Site Map

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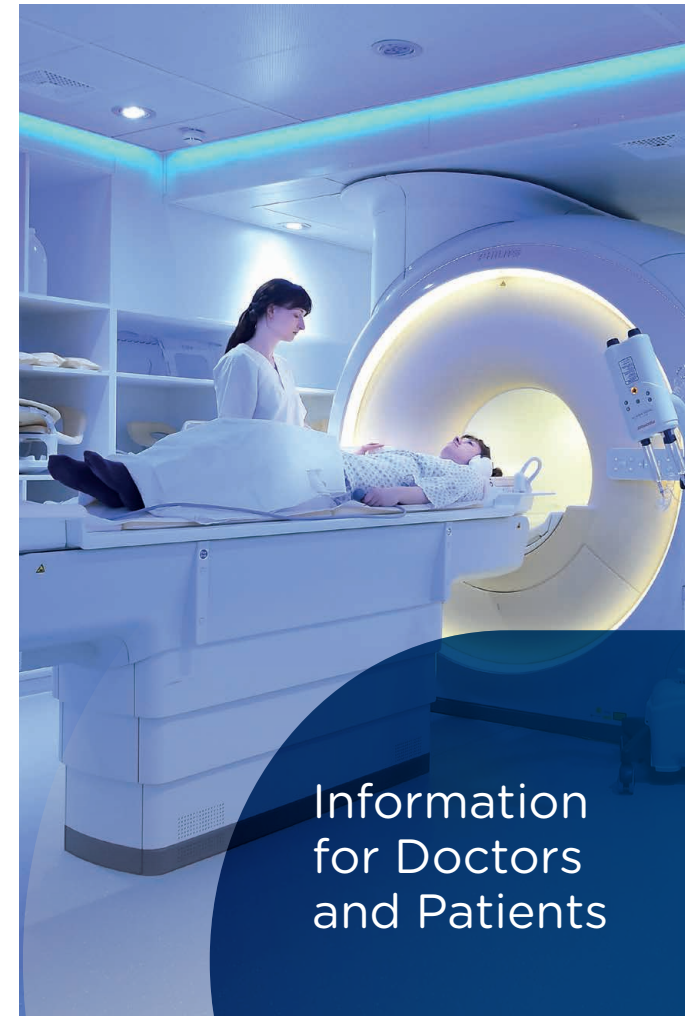
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**UNIKLINIK  
KÖLN**

## MRI-guided high intensity focused ultrasound-therapy (MR-HIFU)



Information  
for Doctors  
and Patients

Dear colleagues, dear patients,

the University Hospital of Cologne offers now the MRI- guided high-intensity focused ultrasound therapy (MR-HIFU) - a non-invasive therapy for treating uterine fibroids and bone metastases.

Ultrasound beams are focused directly on uterine fibroids or bone tumours till the generated heat destroys irreversibly the diseased tissue without affecting skin or surrounding tissues (as intestine, urinary bladder or nerves).

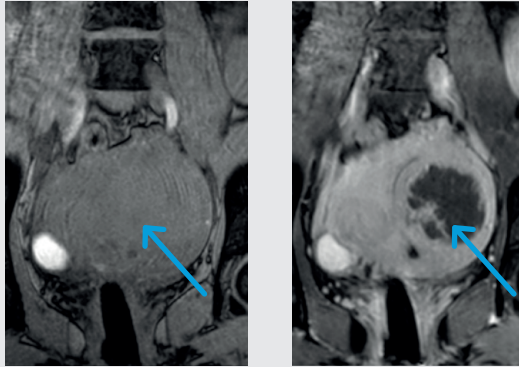
The precise localization and control, including a real-time temperature measurement, is enabled by a 3 Tesla-MR-tomograph of the newest generation (Philips Sonalleve). Germany-wide, this technique is offered by only very few centres.

## Uterine fibroids

**MR-HIFU-therapy for uterine fibroids** is known to be a very safe method with only few minor side effects. Depending on the size of the myoma, the treatment can last up to 3 hours. The treatment requires no hospitalization and requires just a mild analgo-sedation, a general anaesthesia is not required. Generally, patients are able to follow their normal daily routine and take up work within a few days after the treatment.

Possible side effects are discomfort and pain during treatment as well as mild vaginal bleeding after therapy. To avoid reddening and heating, a novel technique supports cooling during the entire treatment.

Multiple studies proved that MR-HIFU-therapy leads to a clear relief of symptoms and hence to an enhanced life quality of the patient. Symptoms improvement correlates with the size of the treated tissue volume.



The left image shows the uterine fibroid before therapy, the right image demonstrates the immediate therapy effect after MR-HIFU-therapy.

All types of uterine fibroids -except pedunculated myomas- can be treated. The final decision whether the uterine fibroid is suitable for a MR-HIFU therapy is taken after a detailed clinical-gynaecological examination including ultrasound as well as a MRI scan of the uterus in prone position. The cooperation of the attending gynaecologist is mandatory for us.

## Bone metastases

MR-HIFU-therapy cannot only be used to treat uterine fibroids but also **to treat bone metastases** at the extremities (arms, legs, pelvis). The ultimate goal of the therapy is pain relief. The highly precise procedure to heat and destroy the tumor tissue or tumor-infiltrated periosteum, respectively can lead to a pain reduction.

The examination is executed in full analgo sedation. This explains why we conduct this examination in cooperation with the Department of Anaesthesiology of the University Hospital of Cologne.

Depending on the size of the metastases the therapy requires 1-2 hours. After the treatment, an over-night hospitalization for observation is required at our hospital.

Compared to patients treated for uterine fibroids less patients world-wide have been treated with bone metastases by means of HIFU. On basis of current knowledge though the treatment is very effective and has a low complication rate as well as minor side effects. Occasionally, temporary pain in the treated area is being reported.