

Patient information

PET/CT of the whole body PET combined with an MR of the brain

Dear patient

On behalf of the Director of our Nuclear Medicine Service and the Management of University Hospital Zurich we cordially welcome you. We expect you for an outpatient examination. Upon arrival at the hospital, please present yourself to our reception desk, located immediately to the right of the main hospital entrance. For administrative purposes, bring along your insurance certificate and show it to our receptionists.

What are PET/CT and MR?

PET (Positron Emission Tomography), CT (Computed Tomography) and MR (Magnetic Resonance Imaging) all provide cross-sectional images of your body. PET/CT and PET/MR are combined examinations called a hybrid PET.

PET: a small dose of radioactive tracer injected sends rays from within your body. The PET scanner localizes the whereabouts in cross-sectional images.

CT: X-rays travel through you and lose energy, which is a measure of body tissue densities. Reconstructed CT-images depict these densities.

MR: Exposed to a strong and several weak additional magnetic fields, radio waves are sent into you. They interact with body tissues and are re-radiated. As these waves characterize tissues, they are recorded and reconstructed into cross-sectional images. Detailed information to be found on in other document.

Preparation for an FDG hybrid PET brain scan

- Stop fluids and food 4 hours prior to your appointment (unsweetened water ok, NO gum/candies)
- Take all medications as prescribed
- If there is a question of pregnancy or you breast-feed, call us the latest the day prior to the examination.
- Contact us, if you take care of children younger than 6 years. Children or young adults are not permitted to accompany you to the examination.
- If you have claustrophobia, please let us know.
- If you have metallic implants, please contact us.
- At the beginning we will check blood glucose levels.
- If you have metallic implants, please contact us.
- For any questions, call us at +41 44 255 35 72

Attention Diabetics

Oral antidiabetics: take medication as prescribed.

Patients on long/short acting Insulin:

On the evening prior to the examination you should inject the prescribed long acting Insulin dose. On the morning of the examination take a small breakfast 4 hours prior to the exam and inject only short acting Insulin. Insulin pump:

leave it on "night setting" (base dose) without further injection during pre-exam hrs.

Examination proper

The entire examination takes 2 hours. After measurement of your blood sugar, we will inject a slightly radioactive sugar solution into an arm vein. There are no side effects. After injection you need to rest in a darkened room for 20 minutes. After this, we will examine your brain with MR, which takes around 40 minutes. The MR exam is followed by the PET/CT, which takes around 40 minutes.

After the PET/CT and MR examination

There are no restrictions which you have to observe after the examination (except that stated above)
If you take care of children younger than 7 years, please contact us. Note that children and young adults should not accompany you to the examination.

Problems

If you suffer from allergies or claustrophobia, please tell our staff and do not operate a car to our hospital. For the MR examination, MR contrast media is given and - depending on the questions of your referring physician - the CT portion of the PET/CT will require iodine containing contrast media. The contrast media are injected into an arm vein. If you have a **known allergy**, particularly **against iodine**, please inform our personnel. In above cases we may need to initially inject another **medication, which can cause drowsiness**. In this case, you are **not** allowed to **operate a car** after the examination.

The evaluation of your examination takes some time. Hence, we cannot give you any results right after the examination. We will transmit the results and the images taken to the referring physician as soon as they are ready.

Please note:

If you are unable to keep your appointment, you have to let us know by phone no later than noon of the day preceding the examination. Else we have to bill you for the cost of the examination.

Phone: +41 44 255 35 55

Parking space around the University Hospital is very limited and maximum parking time is two hours. We kindly ask you to use public transportation, whenever possible.

Magnetic Resonance Imaging (MR)

Short information

Dear patient

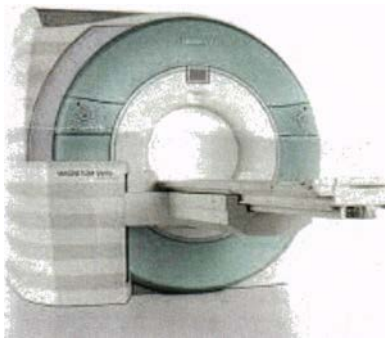
Your referring physician has made an appointment for an MR examination with us.

With this information sheet we would like to briefly inform you on this examination.

What is an MR examination?

MR is a medical imaging modality. For this purpose, the zillions of hydrogen nuclei in your body are oriented like compass needles in a strong magnetic field. Radio wave pulses are sent into your body and radiated back from the hydrogen nuclei. If this back radiation is received when additional brief magnetic fields are switched on, it can be located in your body and images can be reconstructed. Note that the radio waves used are different from X-rays, thus you are not exposed to X-rays during this examination. Radio waves can induce a slight sensation of warmth in your body.

What happens during an MR-examination?



An MR scanner is a doughnut shaped system with a central tunnel measuring around 150 cm and is open in front and in the back (see picture on left). The patient is placed in the tunnel and the body portion examined is centered in it. If your head is examined, your head is in the center. It is of utmost importance that you lay still during the examination and do not move your head. Also refrain from speaking and using your face or tongue musculature, e. g. to moisten dry lips with your tongue. Furthermore you should not change the position of your arms and legs, as movements will result in blurred images and therefore reduce the diagnostic value of the examination. It is possible, that we will have to use MR-contrast media to enhance image contrast. The contrast media will be injected through an arm vein.

About what do you have to inform the reception desk and the physician prior to the exam?

Patients with a cardiac pace maker, a neuro-stimulator, an inner ear implant, with certain artificial heart valves, metal splinters in your body, particularly in the eyes and other metal implanted, may not be suited for an MR examination. Please inform us about such metals and implants in your body. Also inform us, if you are pregnant or breast feeding.

Do I have to prepare myself for the MR examination?

For the MR, there is no particular preparation necessary, however, if you also have a PET/CT, please adhere to the instructions given for this examination.

How to proceed if I have claustrophobia?

If you suffer from claustrophobia, please inform us by phone when making the appointment. We will evaluate, whether we can perform the MR examination. Prior and during the examination we can offer you some support to reduce the claustrophobia. It is possible that we can give you a light sedative medication via nasal spray. Please note that if we have to give you this type of medication, you are not allowed to operate a car or other machinery for 12 hours. We suggest in this case to bring an accompanying person.