

## Brain PET/CT or PET/MR Scan with Radioactive Water

Dear patient,

We welcome you to your appointment in our service, taking place in the near future. Please bring your insurance document or a copy of your insurance certificate with you.

### What is a PET/CT or PET/MR?

PET (Positron Emission Tomography), CT (Computed Tomography) and MR (Magnetic Resonance Imaging) all produce cross-sectional images of your body. In PET/CT and PET/MR, two of the examinations are combined within one scanner.

**PET:** a small dose of radioactive given to the patient - sends rays from within the body. The PET scanner localizes the tracers' whereabouts and represents it in cross-sectional images of the patient.

**CT:** X-rays travel through the patient and are weakened. The weakening is a measure of the densities of various body tissues. The reconstructed cross-sectional CT-images depict these densities throughout the patient.

**MR:** the patient - placed in the scanner - is exposed to one strong and weak variable additional magnetic fields. Radio waves are sent into the patient, interact with body tissues and produce other radio waves. As they characterize tissues of the patient, the waves are recorded and reconstructed into cross-sectional images.

### Preparation for a Brain PET/CT or PET/MR

- You do not have to abstain from food or drink
- You may take all medications
- If you have strong pain, take all your pain medications as prescribed
- In case of existing/possible pregnancy or if you breast-feed, please contact staff.

If you have experienced claustrophobia in the past, please let our medical technicians know. If you have any questions prior to the examination, contact us at +41 (0) 44 255 1818 (option 3). Please bring a 2 CHF coin with you to securely place your belongings in one of our safety lockers.

It is important, that you arrive on time for the examination. Tracers are ready made and will decay, if not used on time.

### Water PET/CT or PET/MR examination

In the PET-Center, our technicians await you. Total examination time is one hour. You will receive an injection of radioactive tracer (in this case a small amount of radioactively labelled water). This water goes into the brain and allows us to measure its regional perfusion.

Injection occurs on the examination table and scanning begins with injection. Usually, the injection is repeated once for a second examination, prior to which a medication is injected to dilate the brain blood vessels. Total scan time is approximately 45 minutes.

It is important that during this time, you lay quietly on the examination table and do not move. To avoid motion of the head, your head will be placed in a special head support.

### After the Water-PET/CT or PET/MR exam

**Note that you should not be accompanied by children or adolescents to the exam.**

### Reporting

Evaluating your PET/CT or PET/MR exam takes time. Thus, no results can be given right after the exam. A report will be sent to your physician usually by the end of the examination day.

### Please note

If you need to cancel or delay your appointment, contact us the latest one working day prior to the exam. Else, we need to charge you for costs generated. Contact: +41 44 255 18 18 (option 3).

