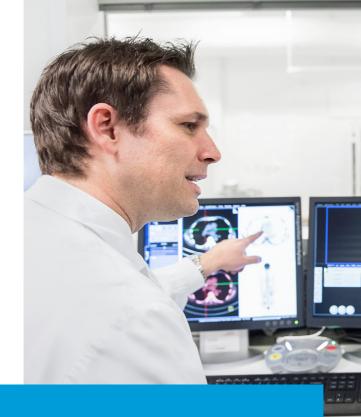




# FDG PET/CT Oncological applications

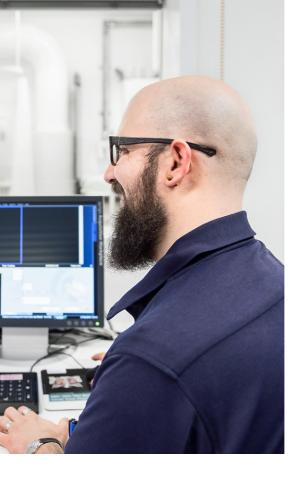
www.petdiagnostik.ch



#### **Dear Patient,**

On behalf of the PET Diagnostik Bern AG, we would like to welcome you to the Inselspital, Bern University Hospital.

You have been referred to the Department of Nuclear Medicine for an outpatient nuclear medical procedure. This information leaflet contains further details on the examination procedure.



#### **General Information**

Nuclear medicine involves the use of low-level radioactive substances to diagnose and treat various diseases. These substances are usually injected into a vein and transported via the blood stream to the respective organs or their cells. Using PET/CT scanners, the distribution of the radioactive substances in the body can be examined and pathological changes can be visualized precisely.

# Purpose of the examination

The PET/CT examination serves to detect or evaluate various diseases (e.g. cancer, inflammation, heart muscle damage or brain disorders) and involves two examinations, PET and CT, which are performed simultaneously.

A FDG-PET/CT is performed to examine the metabolic performance of cells. Cancer cells and inflammatory cells generally display higher metabolic activity and absorb more glucose than healthy cells. Following the injection of a radioactive glucose solution (FDG) into the bloodstream, a PET scan is used to determine the uptake of the radioactive glucose molecules into the cells, and in combination with computed tomography (CT), allocate this to the individual types of tissue, e.g. lymph nodes.

# Preparation for the examination

It is essential that you fast for at least 6 hours before the FDG-PET/CT examination.

You can drink water and take your medication as normal.

If you are a diabetic, you can take your diabetes tablets according to your usual schedule. Patients







with long-acting and short-acting insulin should take their injections as normal on the day before the appointment. On the morning of the examination, 4 hours before the procedure, you may eat a small breakfast and inject short-acting insulin.

If you suffer from claustrophobia, we can provide you with a sedative to help you relax prior to the PET/CT scan. Please ask us about this once you arrive at the clinic. After taking this medication, you should not drive a car for the rest of the day. Ideally, you should have someone accompanying you who can pick you up after the examination.

# Where does the examination take place?

On the date of your appointment, you should come to the Department of Nuclear Medicine in the building INO, Level B of the Inselspital:

PET Diagnostik Bern AG c/o Department of Nuclear Medicine Inselspital, Bern University Hospital Entrance 33, INO Level B

To get to the Department of Nuclear Medicine, please enter the Inselspital through the main entrance (Entrance 33). From there, follow the red line from the main entrance to the elevators (red dot No. 5). Take the elevator to Level B and then continue to follow the red line to the red dot No. 8. Please register at the reception at the Department of Nuclear Medicine. Please bring your health insurance card with you to the appointment.



### **Examination procedure**

First, a weak radioactive glucose solution (radiotracer) is injected into a vein in the arm. As this solution needs a certain amount of time to disperse in the body, the scan is not performed directly afterwards. You will be asked to rest quietly for approximately one hour in a reclining chair in a waiting room. You can bring a portable music player to listen to music while waiting if you wish. Unfortunately, reading or other activities are not permitted to prevent an increased uptake of the radioactive glucose in the muscles which can negatively impact the quality of the images.

At the beginning of the examination, you will be positioned as comfortably as possible on the examination table. During the examination, which, depending on the protocol, can take between 10 and 25 minutes, the examination table will move slightly at several points. In order to obtain the best quality images, you will need to remain still during the procedure. An intercom allows you to communicate with our staff at any time during the scan. The above procedure can vary slightly, depending on the reason for the examination. For example, it may be necessary to inject contrast material. On the day of the examination, our staff will inform you about the exact details of the procedure.

#### Risks and side effects

There are no known side effects from the substances used for PET examination. No allergic reactions are to be expected. The examination procedure can also be carried out for children.

If you have a known allergy to contrast medium, please inform our staff accordingly. In this case, we would advise you against travelling alone by car to the appointment, as you may receive medication prior to the procedure which can impair your ability to drive.

### **Exposure to radiation**

The radiation exposure from the PET/CT examination is approximately equivalent to 2 -3 times the annual natural exposure to radiation in Switzerland.

#### After the examination

- On the day of the examination you should avoid prolonged close contact with children under 16 years of age and pregnant women for a 12-hour period.
- Drinking plenty of fluids and frequent urination helps to flush the radioactive substances out of your body and reduce the exposure to radiation.
- Breastfeeding women should refrain from breast-feeding for 24 hours.
- Following the examination, you can carry out all further activities without any restrictions.

#### **Contact**

If you have any further questions, please do not hesitate to contact us at 031 632 24 24. Additional information is also available on our website at **www.petdiagnostik.ch.** 

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## Please note the following:

The radioactive tracer is prepared individually for each patient in advance. If you need to cancel your appointment, please inform us no later than the morning of the preceding day (031 632 24 24). Failing this, we reserve the right to invoice you for the costs incurred (approx. CHF 500.–).

As some time is needed for the assessment and interpretation of the images, we are unable to provide you with the results immediately after the examination. The examination report and the images will be sent to your referring physician.