

**Bookings:**

PET/CT, SPECT/CT, ULTRASOUND, MRI, CT SCANS

**STANDARD PATIENT PREPARATION PROTOCOL FOR 18F-FDG PET AND PET/CT**

**Dietary Instructions**

- Complete food fasting is required, including cessation of tube feedings, dextrose-containing intravenous fluids, and parenteral hyperalimentation (minimum of 6 h before scan).
- Only plain water is permitted; flavoured water is not allowed (6 h before scan).
- Absolutely no sugar or carbohydrate intake of any kind is allowed, including candy or breathe mints (6 h before scan).
- No caffeine, alcohol, and nicotine products are allowed (12 h before scan).
- A high-protein, low-carbohydrate diet is required (24 h before scan).
- Patients are encouraged to stay well hydrated. Recommend 2 L of plain drinking water in the 4-h period immediately before PET/CT.
- Continued hydration as tolerated is recommended after scan completion to enhance 18F-FDG excretion.
- See **“Sample Menu”**

**Activity Restriction (Minimum 24 h Before Study, Although ideally 48 h)**

- Exercises such as jogging, cycling, weightlifting, strenuous housework, outside work, and sexual activity should be avoided.
- Patients are advised not to chew gum.

**Medications**

- All prescription medications should be taken as directed (insulin and oral hypoglycaemics are discussed under **“Diabetic Patients”**).
- Premedication (as Needed)

**Environmental Conditions**

- Patients should avoid cold exposure for 2 d before the study.
- Patients should avoid air conditioning on the day of the study.
- Patients should keep the car windows rolled up during travel to the PET/CT clinic and, if necessary, use a car heater on cool days.
- Patients should wear warm clothing, including long pants or slacks, long sleeves in summer (no shorts or tank tops), and a sweater, jacket, and cap on cold or even slightly cool days.
- Maintain a warm room temperature (minimum, 23<sup>0</sup>C), and provide warm blankets during the uptake period.

**Diabetic Patients**

- Home blood glucose checks should be performed in the days leading to the PET exam to ensure adequate blood glucose levels ( $\leq 11$  mmol/l).
- All prescription oral diabetes medications should be taken as directed.
- Metformin may be discontinued for 2 days before the study if there are gastrointestinal tumours (to minimize inadvertent gastrointestinal uptake) or if there has been prominent gastrointestinal uptake on prior PET studies.
- Patients on regular insulin should take their normal amount of insulin along with breakfast by 6 AM. They should be scheduled between 12 noon and 1 PM.
- Alternatively, those receiving evening or bed-time long-acting insulin should be scheduled at 7 AM after an overnight fast.
- Target blood sugar is  $\leq 11$  mmol/l.
- 18F-FDG is injected at least 60 min (ideally 90 min) after insulin administration.

**Sample menu:**

**Main course:** Beef, turkey, pork including bacon, fish, chicken, eggs.

**Vegetables:** Broccoli, asparagus, cauliflower, zucchini, spinach, mushrooms.

**Desserts:** Cheese, cottage cheese.

**Drinks:** Unsweetened black coffee, unsweetened tea, water. Artificial sweeteners are not permitted.  
Carbohydrates/sugars to be avoided: Bread, bagels, cereal, cookies, toast, pasta, crackers, muffins, peanut butter, nuts, fruit, fruit juice, potatoes, candy, rice, cornbread, carrots, beets, chewing gum, mints, cough drops, and sweet soft drinks.

***Adapted from Surasi et al. 18F-FDG PET and PET/CT Patient Preparation: A Review of the Literature. J Nucl Med Technol 2014; 42:5–13***

