

## Variation in FDG uptakes in different regions in normal human brain as a function of the time (30 and 60 minutes) after injection of FDG

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**Objective:** The authors' goal was to determine whether FDG uptakes in various regions of the brain are different for early and late scanning time in positron emission tomography (PET). **Method:** F-18 fluorodeoxyglucose (FDG) PET was performed on 15 healthy normal subjects to obtain early and late acquisition glucose metabolic images (30 and 60 min after FDG injection), respectively. The two sets of images were compared in a voxel-by-voxel analysis. **Results:** In the bilateral posterior cingulate gyrus, parietal and frontal association cortices, and subcallosal cortices, the FDG uptakes were larger on the late scan image than on the early scan image, and the FDG uptakes were larger in the cerebellar hemisphere, vermis and frontal basis on the early scan image than on the late scan image. **Conclusions:** These results suggest that there are different regional FDG uptakes depending on the scanning time after FDG injection and we must be careful in replacing conventional FDG PET scanning with early scanning in FDG PET study.

**Key words:** positron emission tomography (PET), F-18 fluorodeoxyglucose (FDG), normal human brain