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- Medical diagnosis → diagnose diseased areas like tumours → tumour cells respond differently to a magnetic field than healthy cells, so they show up as a lighter colour on a MRI scan → will show exact size and location → work out what brain functions affected by tumour

fMRI

- Like MRI → show changes in brain activity as they actually happen:
- ♦ more oxygenated blood flows to active area of the brain (to supply glucose and oxygen)
- ♦ Molecules in oxygenated blood respond different to a magnet field than those in deoxygenated blood
- ♦ So more active areas of the brain can be identified of an fMRI scan

Uses:

- Investigating brain structure → more detailed picture
- Investigating brain function - If a function is carried out whilst in the scanner, the part of the brain that's involved with that function will be more active. E.g. a patient might be asked to move their left hand when in the fMRI scanner. The areas of the brain involved in moving the hand will show up on the fMRI scan
- Medical diagnosis - allow you to study conditions caused by abnormal activity in the brain. E.g. an fMRI scan can be taken of a patient's brain before and during a seizure. This can help to pinpoint which part of the brain's not working properly and find the cause of the seizure.

Sources: CGP Edexcel Revision Guide

Preview from Notesale.co.uk
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