

## Choosing a brain scanning technique

	<p>Which technique would you choose to investigate these cases?</p> <p>What reasons support your choices?</p>
	<p>What would be the limitations or drawbacks of your choices?</p>

### Case 1

You are a researcher in the field of sports psychology. Recently you read of the suicide of a former professional player of American Football, which surprised you because he had had a very successful career and had been very wealthy when he retired from the game. You have since looked into the matter further and discovered what seems to be an unusually high number of former players of impact sports (e.g. American Football, Boxing) who kill themselves or are convicted of violent crimes after their professional career ends. You are wondering if there is a neurobiological cause to this.

### Case 2

You are a cognitive psychologist interested in thinking processes in experts. You want to see if brain activity is different between expert and novice chess players when they are solving chess problems.

### Case 3

You are investigating the causes of obsessive compulsive disorder, and you think that the neurotransmitter serotonin might be involved. You want to compare brain activity in OCD patients and a control group, but you only want to look at those brain areas that use serotonin.

### Case 4

You are a cognitive psychologist interested in mathematical thinking. You want to know if brain activity is different between when people try to solve maths problems 'in their heads' and when they solve maths problems by talking through them out loud.