



The brain networks in two brain damaged patients (left and middle), one of whom imagined playing tennis (middle), alongside a healthy adult (right)

## Brainwaves show vegetative patients' thoughts

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Severely brain-damaged patients may be capable of being consciously aware of the outside world.

A relatively simple test based on measuring patterns of brainwaves has revealed that some patients in a persistent vegetative state have a "robust" network of brain activity that

allows conscious thoughts. The test could be developed into a diagnostic tool for doctors to assess whether such patients might be able to understand what is going on around them, said Srivas Chennu, a clinical neuroscientist at Cambridge University.

"Our research could improve clinical assessment and help identify patients who might be covertly aware despite being uncommu-

nicative," Dr Chennu said. Researchers analysed the brainwaves of 32 patients using 128 electrical sensors. Thirteen patients were classed as being in a persistent vegetative state, with the rest being minimally conscious.

The study, published in the online journal PLoS Computational Biology, found four of the 13 patients with persistent vegetative state had a "robust" network of brain activity.