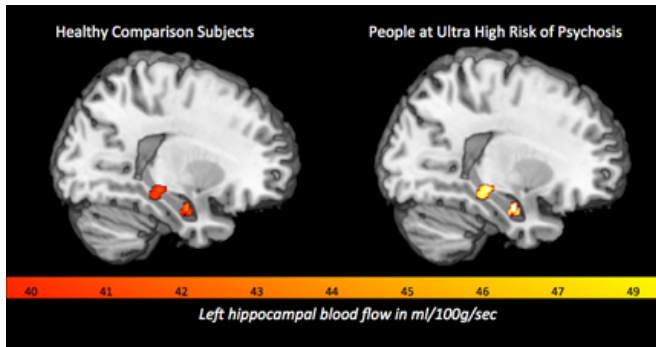


Heightened blood flow in the brain linked to development of psychosis

18 December 2015



Scientists from King's College London and the University of Roehampton have identified a key mechanism in the brain which might be associated with the onset and development of psychosis.

Using a Magnetic Resonance Imaging (MRI) technique they found that 52 young people deemed to be at ultra high risk of [psychosis](#) had increased or 'hyperactive' levels of [blood flow](#) compared to 27 healthy controls in the hippocampus, striatum and midbrain - all brain regions that are particularly implicated in the onset of psychotic disorders like schizophrenia.

This study is one of the first in humans to confirm results from animal research, which has already shown that increased activity in these [brain regions](#) drives the development of psychosis.

In the study, published today in the *American Journal of Psychiatry* and funded by the Medical Research Council, the researchers also repeated the MRI scans after 18 months to examine how blood flow levels had changed. In participants whose presenting symptoms had resolved, the researchers found that resting blood flow levels in the hippocampus had decreased to the levels seen

in healthy participants. This suggests that normalisation of blood flow in the hippocampus may underlie clinical improvement in these participants.

Professor Paul Allen from the Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London and the University of Roehampton said: 'Our research identified significant differences in brain blood flow between healthy people and those at ultra high risk of psychosis. These differences help us understand the neurobiological mechanisms that underlie the development of psychosis.'

Professor Philip McGuire, also from the IoPPN at King's College London, added: 'These findings are also important in terms of clinical practice. They underline the potential of brain scanning to help clinicians predict whether people who are at increased risk of psychosis will go on to develop a disorder or whether they will recover.'

'In addition, understanding what is happening in the brain at this stage also informs the ongoing development of new treatments designed to prevent the development of [psychotic disorders](#).'

Provided by King's College London

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