



SCHIZOPHRENIA Factsheet

October 2020

What is the claustrum?

The claustrum is a thin irregular sheet of grey matter located sagittally between the external capsule and the extreme capsule fibre tracts. The connectivity of the claustrum has not been extensively determined, however it appears to have connections with almost all cortical regions, as well as some subcortical connections such as the hippocampus, amygdala and basal ganglia. The function of the claustrum is also largely unclear, but may be involved in some functions of the neighbouring insula. The widespread connectivity of the claustrum places it in a prime position for multimodal integration and processing of perceptual, cognitive and motor capacities. Definitive understanding of the function of the claustrum is somewhat limited by the spatial resolution of current imaging technologies. Likewise, singular inactivation of the claustrum (whether pharmacologically or surgically) for inferring function is difficult, as the claustrum is at most only a few millimetres wide.

What is the evidence for changes in the claustrum?

Structural changes

Moderate quality evidence found greater reduction in the right claustrum in people with treatment naïve, first-episode schizophrenia compared to people with treated first-episode schizophrenia or compared to people without schizophrenia.

Functional changes

Moderate quality evidence found people with schizophrenia showed reduced activity in the bilateral claustrum during executive function tasks compared to people without schizophrenia.

For more information see the technical table



NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate/schizophrenia.