

SCHIZOPHRENIA Factsheet

August 2020

What is functional laterality?

Functional laterality refers to a natural asymmetry in left or right-side dominance, for example in terms of handedness, or brain function. Handedness refers to the preference for using one hand over the other for certain tasks. Right-handed people show increased dexterity in their right hand, left-handed people show increased ability the left hand. People may also be 'mixed' handed and show different hand preference for different tasks. Listening tasks can be used to assess language lateralisation. People with schizophrenia may show differences in handedness or footedness, as well as altered visual and auditory dominance that may reflect abnormalities in brain laterality and dominance.

What is the evidence for functional laterality?

High quality evidence shows that people with schizophrenia are more likely to be left or mixed-handed than people without schizophrenia, including people with other psychiatric disorders. Moderate to high quality evidence suggests this finding is similar for males and females. Moderate to high quality evidence suggests people with schizophrenia have less right-ear dominance, which may be most apparent in people who experience auditory hallucinations. Moderate to low quality evidence suggest people with schizophrenia show an absence of normal leftward asymmetry in the planum temporale and Sylvian fissure brain regions, and an excess rightward asymmetry in the superior temporal gyrus (particularly posterior). There is also a higher frequency of abnormal (reversed) asymmetry in the frontal and occipital lobes.

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.