



SCHIZOPHRENIA Factsheet

March 2022

What is olfactory functioning?

The olfactory system is the sensory system used to interpret and perceive smell. Olfactory functioning is hierarchical and involves lower-order processing (detection of the stimulus) and higher-order processing (discrimination and identification of the stimulus). Odour detection occurs at the lowest chemical concentration needed to register an odourant. Odour discrimination involves comparing the differences between multiple stimuli, judging odours as pleasant or unpleasant, or comparing the relative concentration of odours. Odour identification draws on a person's knowledge and memory to correctly label the smell.

What is the evidence for olfactory functioning?

Moderate to high quality evidence suggests a medium to large effect of impaired odour detection, identification, and discrimination in people with schizophrenia compared to people without schizophrenia. A longer duration of illness, taking first generation rather than second generation antipsychotics, and older age were all associated with more impairment in patients. Being male or a smoker were related to less impairment in patients.

Moderate to high quality evidence suggests impaired olfactory identification, but not acuity, in people at high clinical or high familial risk of schizophrenia. Moderate quality evidence shows no differences in olfactory functioning between people at clinical high-risk of psychosis who made the transition to psychosis compared to people at clinical high-risk of psychosis who did not make the transition to psychosis.

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.