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SCHIZOPHRENIA Factsheet

February 2022

What are minor physical anomalies?

Minor physical anomalies (MPAs) are subtle anatomical deviations that have little functional or aesthetic impact. They may be traced to events occurring prenatally and may represent risk markers for underlying illness susceptibility. MPAs may be important risk indicators when an individual is already at high risk of developing psychosis, for example, having a first-degree relative with psychosis, and when multiple MPAs occur together in one individual.

What is the evidence for minor physical anomalies?

Moderate to high quality evidence finds a large increase in overall MPA scores in people with schizophrenia compared to controls without schizophrenia. There were also increased MPA scores in people with schizophrenia compared to their relatives, with no differences between relatives and controls.

Moderate quality evidence suggests MPA frequency is increased in six regions: head, eyes, ears, mouth, hands and feet. Specific MPAs include tongue with irregular smooth-rough spots, single transverse palmar crease (one crease extending across the palm of the hand), syndactyly (wholly or partially united) 2nd and 3rd toes, malformed ears, low set ears, smaller head circumference, and curved fifth finger.

Moderate to high quality finds no differences between people with schizophrenia and controls in second-to-fourth digit ratio, apart from the right hand of males with schizophrenia which showed increased second-to-fourth digit ratio than controls. Second-to-fourth digit ratio is constant throughout life and is the ratio of the length of the index finger (second digit) to the length of the ring finger (fourth digit) of the same hand. Higher 2D:4D ratio is thought to be the result of lower levels of fetal testosterone.

For more information see the technical table

HOW YOUR SUPPORT HELPS

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Discover. Conquer. Cure.

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.