



## POSTER PRESENTATION

# Olfactory dysfunction in schizophrenia

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### Abstract

**Introduction:** The sense of smell and its relation to neurological and psychiatric diseases is a field of growing interest in clinical research. Like other neuropsychological measures, it provides the opportunity to assess brain function in a non-invasive way. Previous research has provided compelling support for olfactory dysfunction in schizophrenia patients, their first-degree relatives, and youth at-risk for psychosis.

**Objectives:** The authors' aim is to describe and highlight the clinical and scientific relevance of olfactory dysfunction in schizophrenia patients, their first-degree relatives, and youth at-risk for psychosis.

**Methods:** A literature search was performed on PubMed database using the keywords olfactory, olfaction, dysfunction and schizophrenia and retrieved papers were selected according to their relevance.

**Results:** There are robust olfactory deficits in schizophrenia patients that include reduced odor identification, odor detection threshold sensitivity, odor discrimination, odor memory, and odor hedonic judgments. They have also been documented in ultra high-risk cohorts, nonpsychotic first-degree relatives of schizophrenia patients, and in individuals scoring high on psychometrically defined measures of schizotypal personality features. Structural and physiological abnormalities in the underlying neurocircuitry of the olfactory system have been documented, ranging from reduced volume in the olfactory bulbs, posterior nasal cavity, and olfactory eloquent brain regions to abnormal olfactory event related potentials and electro-olfactograms.

**Discussion and Conclusions:** These findings raise the possibility that these deficits represent a biobehavioral marker of vulnerability for the illness and olfactory measures may be a useful marker of schizophrenia risk status.

**Supplementary material:** Complete presentation available at <http://ijcnmh.arc-publishing.org>

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