

B vitamins reduce schizophrenia symptoms, study finds

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Functional magnetic resonance imaging (fMRI) and other brain imaging technologies allow for the study of differences in brain activity in people diagnosed with schizophrenia. The image shows two levels of the brain, with areas that were more active in healthy controls than in schizophrenia patients shown in orange, during an fMRI study of working memory. Credit: Kim J, Matthews NL, Park S./PLoS One.

A review of worldwide studies has found that add-on treatment with high-dose b-vitamins - including B6, B8 and B12 - can significantly reduce symptoms of schizophrenia more than standard treatments alone.

The research - on the effect of vitamin and [mineral supplements](#) on [symptoms](#) of schizophrenia - is funded by The Medical Research Council and University of Manchester, and is published in *Psychological Medicine*, one of the world's leading psychology journals

Lead author Joseph Firth, based at the University's Division of Psychology and Mental Health, said: "Looking at all of the data from [clinical trials](#) of vitamin and mineral supplements for schizophrenia to date, we can see that B vitamins effectively improve outcomes for some [patients](#)."

"This could be an important advance, given that new treatments for this condition are so desperately needed."

Schizophrenia affects around 1% of the population and is among the most disabling and costly long term conditions worldwide.

Currently, treatment is based around the administration of antipsychotic drugs.

Although patients typically experience remission of symptoms such as hallucinations and delusions within the first few months of treatment, long-term outcomes are poor; 80% of patients relapse within five years.

The researchers reviewed all [randomized clinical trials](#) reporting effects of vitamin or mineral supplements on psychiatric symptoms in people with schizophrenia.

In what is the first meta-analysis carried out on this topic, they identified 18 clinical trials with a combined total of 832 patients receiving antipsychotic treatment for schizophrenia.

B-vitamin interventions which used higher dosages or combined several

vitamins were consistently effective for reducing [psychiatric symptoms](#), whereas those which used lower doses were ineffective.

Also, the available evidence also suggests that B-vitamin supplements may be most beneficial when implemented early on, as b-vitamins were most likely to reduce symptoms when used in studies of patients with shorter illness durations.

Firth added: "High-dose B-vitamins may be useful for reducing residual symptoms in people with schizophrenia, although there were significant differences among the findings of the studies we looked at."

"There is also some indication that these overall effects may be driven by larger benefits among subgroups of patients who have relevant genetic or dietary nutritional deficiencies."

Co-author Jerome Sarris, Professor of Integrative Mental Health at Western Sydney University, added: "This builds on existing evidence of other food-derived supplements, such as certain amino-acids, been beneficial for people with [schizophrenia](#)."

"These new findings also fit with our latest research examining how multi-nutrient treatments can reduce depression and other disorders."

The research team say more studies are now needed to discover how nutrients act on the brain to improve [mental health](#), and to measure effects of nutrient-based treatments on other outcomes such as brain functioning and metabolic health.

Provided by University of Manchester

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