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Diet and Mental Health: Does food affect your mood?*

In the past ten years research on the effect of diet and nutrition on mental health has skyrocketed, with mounting evidence indicating that diet and nutrition are as important to psychiatry as they are to cardiology.

This article by Anna Clark, shares recent research in the BioMedCentral blog (2015), Diet and Mental Health: Does food affect your mood?



The benefits of a healthy balanced diet on physical health are well established. But does diet affect your mental health? In the past ten years research on the effect of diet and nutrition on mental health has skyrocketed, with mounting evidence indicating that diet and nutrition are as important to psychiatry as they are to cardiology. New research [published recently](#) in *BMC Psychiatry* suggests that fruit and vegetable consumption may be associated with reduced psychological distress.

Mental disorders account for significant global health burden, with data from the [WHO World Mental Health \(WMH\) Surveys](#) estimating that more than 25% of the population worldwide will develop one or more mental disorders during their lifetime. Depressive disorders are common mental disorders, occurring in people of all

ages across all world regions, and were the [second leading cause of years lived with disability worldwide in 2010](#).

Depressive disorders often manifest as persistent feelings of sadness and worthlessness and a lack of desire to engage in formerly pleasurable activities, and can severely impact an individual's quality of life. One potential risk factor for mental disorders, including depression, is psychological distress – unpleasant feelings or emotions that impact your level of functioning.

[Accumulating evidence](#) suggests that poor quality diets are risk factors for common mental disorders, including depressive disorders, whilst healthy diets are protective. Many of the studies investigating the link between diet, nutrition and mental health have indicated that certain diet patterns may be associated with reduced incidence of depression.

A [recent study](#) in *BMC Medicine* assessed the dietary patterns of Spanish university students, using diet quality scores to compare three diet patterns at baseline and at a 10 year follow up period. The researchers found that adherence to healthy dietary patterns, high in fruit, vegetables, legumes, and nuts and low in processed meats (such as a Mediterranean or pro-vegetarian diet pattern), was associated with reduced risk of depression. It is currently unclear which particular nutrients in these diet patterns may be responsible for the observed reduced risk in depression. However, fruit and vegetables contain a large number of nutrients that may be beneficial to both physical and mental health.

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Does 5-a-day keep psychological distress at bay?

The 5-a-day recommendation is probably one of the best known dietary campaigns to date. Following [recommendations from the World Health Organisation](#) that individuals consume “a minimum of 400g of fruit and vegetables per day (excluding potatoes and other starchy tubers)” for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity, we were bombarded by public health campaigns encouraging us to each to eat five portions of fruit and veg a day to improve our physical health. But could following the 5-a-day recommendation impact more than just our physical health?



New research [published](#) in *BMC Psychiatry* suggests that following the 5-a-day recommendation may be associated with reduced psychological distress, widely used as an indicator of mental health. The definition of 5-a-day varies slightly by country; in Switzerland, where the study was carried out, the 5-a-day campaign is defined by eating at least 3 portions of vegetables and 2 portions of fruit daily.

The researchers, led by [Aline Richard](#) at the University of Zurich, analysed data from the 2012/2013 Swiss Health Survey, during which study participants completed a computer assisted telephone interview followed by a written questionnaire. They analysed data from two components of the Swiss Health Survey, a tool for assessing psychological distress (the 5-item mental health index) and food frequency questionnaires, and subsequently accounted for socio-demographic variables and health behaviours that could influence the associations between fruit and vegetable consumption and psychological distress for more than 20,000 participants.

18% of study participants reported eating 3 portions of vegetables per day, with 35% consuming 2 portions of fruit per day. Only 11% of participants adhered to the full 5-a-day recommendation. When the data was stratified by the level of psychological distress reported, a higher percentage of those adhering to the 5-a-day reported low distress levels compared to individuals with moderate or high distress levels. Those who ate 3 portions of vegetables per day also had lower odds of reporting high distress levels compared to those who ate less than the recommended vegetable allowance. Interestingly, no such association was identified for fruit consumption. The researchers concluded that keeping to the 5-a-day recommendation was associated with lower psychological distress.



Fruit and vegetables contain a complex mix of nutrients that may account for their beneficial health effects. It remains unclear which components may be beneficial to mental health, but interestingly this study suggests that when considered separately vegetable consumption may be more beneficial than fruit consumption. It also seems we are bad at following health related advice – only 11% of this Swiss population adhered to the 5-a-day recommendation.

It is important to note that this study only demonstrates a correlation between eating your 5-a-day and reduced psychological

distress, and as the researchers are keen to point out, longitudinal studies are needed to determine the causal nature of the relationship. Despite this caveat, these results suggest that eating your 5-a-day could be crucial in keeping the blues at bay.

Read the research: [Associations between fruit and vegetable consumption and psychological distress: results from a population-based study](#)

*Clark, A. (2015). Diet and Mental Health: Does food affect your mood? BioMed Central. Retrieved from <https://blogs.biomedcentral.com/bmcseriesblog/2015/10/07/diet-mental-health-food-affect-mood/>