

# Onions, mood and mental health

At any one time, one in six Australians is experiencing a mental health issue such as depression or anxiety, or both. Onions are abundant in nutrients that support brain function and help boost mood. Enjoy this vegetable every day to support good mental health.



#### What is good mental health?

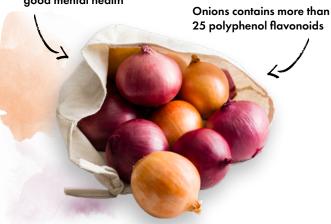
The World Health Organisation defines mental health as "a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community".2

Research shows that our diet quality is directly linked to mental health outcomes.<sup>3</sup> This relationship has been confirmed by the SMILES trial (Supporting the Modification of Lifestyle in Lowered Emotional States) which showed a clear cause and effect relationship between what we eat and our mental health.4

Emerging research has also found a specific subclass of polyphenols, known as flavonoids, are associated with a decreased risk of depression.<sup>5</sup> Flavonoids are commonly found in olive oil, berries, tea, herbs and vegetables like onions - all foods that feature in the Mediterranean diet.

Exactly how flavonoids reduce depressive symptoms is unclear, however, we do know they are a powerful class of antioxidants and can therefore help combat free radicals that cause oxidative stress.

Natural source of folate and Vitamin C to support good mental health



#### Onions are nature's natural mood booster

Onions contain more than 25 polyphenol flavonoids, and are also a source of the essential nutrients folate and Vitamin C, which makes them a great addition to your diet to help support good mental health and maintain a positive mood.

#### Good gut health = good mental health

We all have trillions of microorganisms living inside our digestive tract. Collectively, these microorganisms make up your gut microbiome, which thrives when there is a balanced diversity of gut bacteria.



Eating a wide variety of plants in your everyday diet helps maintain the diversity of your gut microbiome

If the balance of bacteria in your gut is disrupted, this could lead to inflammation of the digestive tract which is a known risk factor for mental illness.

Research shows that people who eat more than 30 different plant foods a week have greater gut microbiome diversity than those who only eat 10 a week.<sup>6</sup> Those with a higher intake of plant foods also have more bacteria that produce compounds called 'short chain fatty acids'. These are linked with reduced inflammation and better mental health outcomes and can stimulate the production of serotonin in the brain, a hormone that is linked to mood and emotion.<sup>7</sup>

Like all vegetables, onions contain dietary fibre (1.6g in 75g or  $\ensuremath{\%}$ an onion). However, it's the fructans in onions, a prebiotic fibre, that really help feed gut bacteria and keep your gut health in check.

Your gut and brain are closely linked with each other via a twoway communication pathway between the gastrointestinal tract and the central nervous system. This is known as the 'gut-brain axis'. Half an onion contains 1.4g of this prebiotic fibre.



#### Add onion plant power goodness to a mood-boosting diet



## Boostyour mood

Slice half an onion and add to your meals to boost your mood. This will give you 11% of your daily folate requirements, an essential nutrient for optimal brain function as part of a healthy and varied diet.



Onions will help boost your vitality. Including half an onion every day in your meals provides 13% of the recommended intake for Vitamin C an essential nutrient that helps reduce tiredness and supports brain function as part of a healthy and varied diet.



Get the most out of your onions nutritionally by using quick cooking methods such as stir fry, microwave and steam. You can also enjoy onions raw, or ferment them with other vegetables.



### The benefits of anthocyanins

Anthocyanins, found only in red onions, contain extra phytonutrients which are responsible for the purple colour.

Enjoy sliced red onions in this asian chicken salad and reap the benefits of anthocyanin polyphenols to help boost mood.



1. https://www.beyondblue.org.au/media/statistics 2. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. World Psychiatry. 2015;14(2):231–3. 3. Jacka FN, Berk M. Depression, diet and exercise. Med J Aust. 2012;1(4):21–3. 4. Opie RS, O'Neil A, Jacka FN, Fizzinga J, Itsiopoulos C. A modified Mediterranean dietary intervention for adults with major depression: Dietary protocol and feasibility data from the SMILES trial. Nutr Neurosci. 2018 Sep;21(7):487–501. doi: 10.1080/1028418X.2017.3121841. Epub 2017 Apr J P. PMID: 28424061. https://pubmed.ncb.in.nniin.gov/28424045. 5. Chang SC, Cassidy A, Willelt WC, Rimme Bg, O'Reilly EJ, Okereke OI. Dietary flavonoid intake and risk of incident depression in midlife and older women. Am J Clin Nutr. 2016 Sep;104(3):704-14. doi: 10.3945/cjcn.115.124545. Epub 2016 Jul 13. PMID: 27413131; PMCID: PMC4977290. https://pubmed.ncb.inlm.niin.gov/27413131 6. McDonald D, et al. American Gut Consortium, American Gut: an Open Platform for Citizen Science Microbiome Research. Systems. 2018 May 15;3(3):e00031-18. doi: 10.1128/mSystems.00031-18. PMID: 29795809; PMCID: PMC5954204, https://pubmed.ncb.inlm.niin.gov/27975809; T. Silva YP, Bernardi A, Frozza RL. The Role of Short-Chain Fatty Acids From Gut Microbiota in Gut-Brain Communication. Front Endocrinol (Lausanne). 2020;11:25. Published 2020 Jan 31. doi: 10.3389/fendo.2020.00025

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