

Wheel of Well-being

Food Bingo facilitator's notes



Drinks 6 – 8 glasses of water each day

NHS still recommends this in the UK. EU guidance is a bit higher (8 – 10).

2 of the experts both said “drink to thirst” so which is a useful way of looking at it, and generally it seems individualised.

Drinking from a plastic water bottle is fine (<http://www.cancerresearchuk.org/about-cancer/causes-of-cancer/cancer-controversies/plastic-bottles-and-cling-film>)

The key here is to make sure you do drink *water* and not sweetened drinks, which can lead to huge calorie increases, peak your blood sugar etc.

Eats oily fish at least once a week

Most countries recommend two portions of fish a week, only the UK specifies 1 has to be oily.

Ruth H. Thurstan, Callum M. Roberts, The past and future of fish consumption: Can supplies meet healthy eating recommendations? Marine Pollution Bulletin, Volume 89, Issues 1-2, 2014,

Fish consumption is associated with decreased risk of depression. 2 or greater portions had a reduced risk in women.

Kylie J. Smith et al., (2014) Longitudinal Associations Between Fish Consumption and Depression in Young Adults, American Journal of Epidemiology, Vol. 179, No. 10

Though also mixed results where fish consumption has no relation to psychological distress in a large sample size:

Anna Lisa et al., Fish consumption and polyunsaturated fatty acids in relation to psychological distress International Journal of Epidemiology 2010;39:494-503

Overall, mixed evidence on this for wellbeing, though general health benefits are there. Eg, risk of death is lower in high intake populations:

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Chen et al., (2016) N-3 long-chain polyunsaturated fatty acids and risk of all-cause mortality among general populations: a meta-analysis, Scientific Reports 6:28165

No conclusive evidence regarding fish and fat content. According to the study below there is large variance in farmed fish, though it can be in line with wild fish (in terms of fat content).

Eating wild and farmed fish has their own environmental impacts that might influence the choice and also not to overdo it due to mercury (increased odds of toxic mercury levels even with Salmon and tuna consumption!)

Dennis P. Gladis et al., (2014) Fatty Acid Profiles of Commercially Available Finfish Fillets in the United States, Lipids, 49:1005-1018

Nielsen et al., Seafood consumption and blood mercury concentrations in adults aged ≥ 20 y, 2007-2010. Am J Clin Nutr. 2014 May;99(5):1066-70.

Gets food cravings

We feel momentarily better after certain foods – no surprise there for anyone who eats chocolate (or in the study below, drinks coffee, alcohol or sweet things)!

Strahler and Nater, Differential effects of eating and drinking on wellbeing—An ecological ambulatory assessment study, Biological Psychology 131 (2018) 72-88

However, giving in to these cravings can be bad for us in the long term, especially as the more stressed we get, the more cravings we have:

Those who are chronically stressed get more food cravings which can increase weight gain.

Chao et al., Food cravings mediate the relationship between chronic stress and body mass index, Journal of Health Psychology 2015, Vol. 20(6) 721-729

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Is, or has been, a vegetarian or vegan

Some evidence that being a vegetarian in men can actually *increase* depressive symptomology

Hibbeln et al., Vegetarian diets and depressive symptoms among men, Journal of Affective Disorders 225 (2018) 13–17

And in women:

Jacka et al., Red Meat Consumption and Mood and Anxiety Disorders, Psychother Psychosom 2012;81:196–198

Suggested this might be due to deficiencies in diet eg:

Danish cohort vegan deficiencies is Vit D/ iodine, selenium protein and Vit A in women.
Kristensen et al., Intake of macro- and micronutrients in Danish vegans, Nutrition Journal (2015) 14:115

However, a systematic review brought up: Vitamin b12, iron, calcium, vitamin D, omega 3 fatty acids and protein for vegans:

Fields et al., How to Monitor and Advise Vegans to Ensure Adequate Nutrient Intake, The Journal of the American Osteopathic Association February 2016 Vol 116 No. 2 [Questionable journal!]

Indeed, supplements have been shown to be useful in relation to depression, so does have any effect on wellbeing in a clinical sense. B12 supplementation might be useful in at risk populations for depression:

Almeida et al., Systematic review and meta-analysis of randomized placebo-controlled trials of folate and vitamin B12 for depression International Psychogeriatrics (2015), 27:5, 727–737

And omega-3 for treatment of depression:

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Hallahan et al., Efficacy of omega-3 highly unsaturated fatty acids in the treatment of depression, The British Journal of Psychiatry (2016) 209, 192–201

See this paper again:

Redzo Mujcic, and Andrew J. Oswald (2016), Evolution of Well-Being and Happiness After Increases in Consumption of Fruit and Vegetables AJPH August 2016, Vol 106, No. 8

Not necessarily environmentally friendly to be vegan/vegetarian, though generally it is!

Rosi et al., Environmental impact of omnivorous, ovo-lacto-vegetarian, and vegan diet, Scientific Reports, 2017, 7: 6105

Knows that they are affected by food additives

MSG doesn't produce headaches – likely a result of high salt/fat food consumption related to MSG use (see https://www.skepticalraptor.com/skepticalraptorblog.php/msg-myth-versus-science/#Real_MSG_science)

Obayashi Y, Nagamura Y. Does monosodium glutamate really cause headache?: a systematic review of human studies. J Headache Pain. 2016;17:54.

Additional information: <http://www.abc.net.au/news/health/2017-06-10/your-experiences-with-food-and-mood/8590710>

Has experienced caffeine withdrawal

Most likely that caffeine doesn't do much for mood, alertness and performance in long term users except for counter the loss of sleep that previous caffeine use produced. Better just to work on sleep hygiene!

James and Rogers, Effects of caffeine on performance and mood: withdrawal reversal is the most plausible explanation, Psychopharmacology (2005) 182: 1–8

Rogers et al., Faster but not smarter: effects of caffeine and caffeine withdrawal on alertness and performance, Psychopharmacology (2013) 226:229–240

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Didn't eat any breakfast today

Eating breakfast is good for you. This is a survey showing that those who do eat breakfast correlated wellbeing scores to eating breakfast.

Sue Reeves, et al., Breakfast habits, beliefs and measures of health and wellbeing in a nationally representative UK sample, Appetite, Volume 60, 2013

And indirectly, for instance, increasing odds of a high BMI index, which related to worse wellbeing scores in adolescents.

Kelly et al., BMI Development and Early Adolescent Psychosocial Well-Being: UK Millennium Cohort Study, PEDIATRICS Volume 138, number 6, 2016: e2 016096

Regularly eats 'live' yoghurt to aid their digestion

Here's the original animal study for Lactobacillus:

Bravo et al., Ingestion of Lactobacillus strain regulates emotional behavior and central GABA receptor expression in a mouse via the vagus nerve. Proc Natl Acad Sci U S A. 2011 Sep 20;108(38):16050-5.

Major depressive disorder is associated with changes in the gut microbiota – including decreases in bifido and lacto. Administration of probiotics seems to decrease both anxiety and depression in clinical settings and these reviews will help with the gut/brain evidence:

Wallace and Milev, The effects of probiotics on depressive symptoms in humans: a systematic review Ann Gen Psychiatry (2017) 16:14

In relation to mood, it does seem to reduce reactivity in individuals without a mood disorder:

Steenberger et al., A randomized controlled trial to test the effect of multispecies probiotics on cognitive reactivity to sad mood, Brain, Behavior, and Immunity 48 (2015) 258-264

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Unlikely Candida has any impact
(<https://sciencebasedmedicine.org/candida-and-fake-illnesses/>)

Probiotics are good for those with IBS

Ford et al., Efficacy of prebiotics, probiotics, and synbiotics in irritable bowel syndrome and chronic idiopathic constipation: systematic review and meta-analysis Am J Gastroenterol 2014; 109:1547-1561

But also in emotional disorders (eg pre-operation anxiety!)

Roman et al., (2018) Probiotics in digestive, emotional, and pain-related disorders, Behavioural Pharmacology 29:103-119

Eats the recommended minimum '5-a-day'

Healthy diets (of which 5 a day, fish etc are all included – especially Mediterranean type diets)

Is '5-a-day' still true?

A recent meta-analysis found reduced risk for heart diseases, stroke, cardiovascular disease, cancer and premature death persisted up to 800g (600g for cancer) of fruit and veg intake – which is about *10 servings* – so 5 might be a bit conservative.

Aune et al., Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality—a systematic review and dose response meta-analysis of prospective studies, International Journal of Epidemiology, 2017, 1029-1056

There is good evidence that a healthy diet is good for wellbeing!

Here's a Harvard review 2015 article with links at the bottom to relevant studies regarding healthy diet and mental health:

<https://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>

Good diets have physical benefits in the long term, but psychological benefits are much quicker!

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Redzo Mujcic, and Andrew J.Oswald (2016), Evolution of Well-Being and Happiness After Increases in Consumption of Fruit and Vegetables AJPH August 2016, Vol 106, No. 8

Laura Sapranaviciute-Zabazlajeva et al., Link between healthy lifestyle and psychological well-being in Lithuanian adults aged 45-72: a cross-sectional study BMJ Open 2017;7:e014240.



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