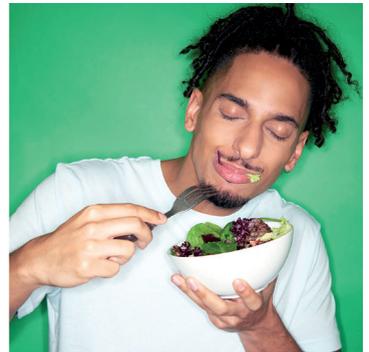




feed your happy HORMONE

Yes! There's a connection between your mental health and what you put on your plate. Here's the science behind it, plus tips on good mood food.

Words  Mark van Dijk



You are what you eat. It may sound like a horrible cliché but there is a grain of truth to it. A growing field of food science, known as nutritional psychiatry, says there are many links between what you eat and how you feel.

Biologically, it makes sense. Your brain uses a neurotransmitter called serotonin to help regulate your sleep, mood and appetite, and to inhibit feelings of pain. 'Since about 95% of your serotonin is produced in your gastrointestinal tract, and your gastrointestinal tract is lined with a hundred million nerve cells, it makes sense that the inner workings of your digestive system don't just help you digest food, but also guide your emotions,' says Dr Eva Selhub of Harvard Medical School. Obviously, a well-chosen snack can't treat severe mental illness. But there's a body of research that suggests a healthy diet can certainly ease – and even prevent – low-grade depression.



Good mood carbs

▶ 'Often when you cut carbs from your diet, you might feel down or fuzzy-brained because serotonin – that's your 'happy hormone' – is produced from carbohydrates,' says registered dietician Catherine Day. 'If you opt for a low-carb diet, ensure you're eating enough fruits, vegetables, whole grains and legumes – and very little added sucrose or sugars.'

The science behind this is simple: your brain's ability to concentrate and focus comes from the supply of energy it draws from blood glucose, which in turn comes from the healthy carbohydrates you eat. 'It's the natural sources of carbohydrates – whole grains, fruits, veggies, legumes and lower-fat dairy – that really feed serotonin, as opposed to the unhealthy carbohydrates such as cakes, pastries and white bread,' Day explains.



Perk-you-up proteins

▶ 'Serotonin also needs enough protein to be produced,' says Day, which is why a high-protein diet is so important for a stable mood. Proteins in your diet provide the amino acids that make up your neurotransmitters, which carry signals from one brain cell to another. The better you feed these neurotransmitters, the better they'll do their job.

Tryptophan is one of the amino acids needed for the production of serotonin, but – as a 2007 *Journal of Psychiatry and Neuroscience* study pointed out – while purified tryptophan increases brain serotonin, foods containing tryptophan do not. (Simply put, it's the least abundant amino acid in protein, so there's just not enough

of it to make a difference.) 'The idea, common in popular culture, that a high-protein food such as turkey will raise brain tryptophan and serotonin is, unfortunately, false,' the study noted. **What is true, though, is that protein is important for good blood sugar control, so if you eat protein regularly, you should reduce your risk of hypoglycaemia (low blood sugar), which can cause mood swings!**



Feel good fats

▶ A fatty-brain is a happy brain. At least, that's what a growing body of research has found... and it's worth pointing out that it depends on the kind of fat you're talking about. 'The human brain is nearly 60% fat,' Dr Chia-Yu Chang of Taiwan's Chi-Mei Medical Centre wrote in a 2009 study. 'We've learned in recent years that fatty acids are among the most crucial molecules that determine your brain's ability to perform.' This is confirmed by research conducted by the University of Pittsburgh, which found that 'good' omega-3 polyunsaturated fatty acids can influence your mood, personality and behaviour. The study found that healthy people who had lower blood levels of those 'good fats' (commonly found in fish oil) were more likely to report mild or moderate symptoms of depression, a more negative outlook and be more impulsive.

The type of fat is very important. While saturated fats supply energy, polyunsaturated fats like omega-3s keep cell membranes flexible, helping the proteins embedded in them to change shape, send messages and generally keep your brain sharp, mobile and... happy.



WHAT'S ON YOUR PLATE?

▶ A 2017 Australian study into nutritional psychiatry highlighted the success of the ModiMedDiet. This modified Mediterranean diet promotes the following foods, while urging moderate consumption of red meat and dairy products.

- ▶ veggies
- ▶ fruits
- ▶ whole grains
- ▶ oily fish
- ▶ extra virgin olive oil
- ▶ legumes
- ▶ unsalted raw nuts



Shun the sugar

▶ To keep your brain sharp and happy, avoid high-sugar foods. Although, as Day points out, it depends what you mean by 'sugar'. 'If you're talking about sucrose, then no: you don't need sucrose in your diet,' she says. 'You can get that from fruits and vegetables. But there is an allowance for sugars – the World Health Organization recommends no more than four teaspoons a day for women and six teaspoons a day for men.' Next time you're about to reach for that (third) doughnut, go for carbs and protein instead.



Get enough H2O

▶ While you're focusing on good mood foods, don't forget to drink water. A 2011 study by the University of Connecticut's Human Performance Laboratory found that even mild dehydration can affect your mood, energy levels and ability to think clearly – especially if you're a woman. So what exactly is 'mild dehydration'?

BEING 'HANGRY' IS A THING

► Lize Stander, an associate dietician at Kelly Lynch, says that "good mood food" relates more to your relationship with food – than to specific meals and ingredients. 'Dieters often find they become food-obsessed,' she says, 'and this is mostly due to hunger. Not eating when you feel hungry is a great source of stress, and makes you less able to focus on



other tasks. **To help ease anxiety, nourish your body regularly with healthy, satisfying foods, and prevent your blood sugars**

from becoming too low.'

Stander advises focusing on your health, instead of on your weight. 'Eat lots of fruit, veggies and whole grains, but also allow yourself to have that slice of cake without guilt,' she says. 'Move often, and do it because of the mental health benefits or because you like to celebrate your body's ability. Never do

it to make up for what you ate.' After all, if you're only exercising to burn off the food you're eating... that's just sad.'

It's when you lose 1.5% of your body's normal water volume... and the problem is, most times your body doesn't warn you about it until it's too late. 'Your thirst sensation doesn't really appear until you are 1% or 2% dehydrated,' says study author Professor Lawrence Armstrong. 'By then dehydration is already setting in and starting to impact how your mind and body perform.'

Slow down on the java

► Can't face the day without your morning cup of coffee? The medical world can't seem to agree if your caffeine intake can improve your mood, or make it worse. A 2016 study of Korean adolescents linked higher caffeine intake to increased weight, lower academic achievement and increased depression... but at the same time, studies conducted in China between 1980 and 2015 found that caffeine-related depression

actually affected less than 1% of the population.

There's little doubt, though, that alcohol can lower your mood. For problem drinkers especially, bouts of depression are often the direct result of heavy alcohol intake, according to a 2013 study published in the *Journal of Studies on Alcohol and Drugs*. As lead researcher Dr Marc Schuckit of the University of California told *Science Daily*, **'You may say, "Well, I drink a lot because I'm depressed." You may be right, but it's even more likely that you're depressed because you drink heavily.'**

Even if you're not a heavy drinker, it's worth watching what you put in your glass. A 2017 study by the BMJ (formerly the *British Medical Journal*) found that while red wine and beer may make you feel relaxed (sometimes to the point of making you lethargic), spirits can increase your aggression. And no matter what kind of alcohol you consume, you'll inevitably reduce your serotonin levels.



MOOD-BOOSTING MINERALS

► **The following vitamins and minerals have been shown to improve mood over time, notably in a 2010 study by the University of Melbourne. Speak to your doctor about adding them to your daily intake.**

- **VITAMIN B12 (Cyanocobalamin): helps your brain regulate depression**
- **FOLATE: boosts the efficiency of anti-depressants**
- **CALCIUM: reduces premenstrual depression**
- **CHROMIUM: helps to increase the production of your 'happy hormone' serotonin**
- **IODINE: boosts your thyroid, which regulates depression**
- **IRON: reduces fatigue and apathy**
- **SELENIUM: provides antioxidant defence for your brain**
- **ZINC: boosts the efficiency of anti-depressants while reducing their side effects**