

## Eating Healthily when under stress

Maintaining healthy habits can be difficult even at the best of times but, when we are under stress, tired, overwhelmed or simply not in our normal routine it can be extra difficult to stick to eating well.

'Fight or flight' is our natural response to stress. When we are under stress of any kind our bodies produce cortisol and adrenaline, this liberates energy, in the form of glucose, from bodily stores and makes us feel alert and ready to fight or run away (flight) from the threat we are facing <sup>(1)</sup>.

Unfortunately, today, most of the threats we face are mental and often long-lasting so we cannot outrun or deal with them quickly. This results in prolonged elevation of stress hormones in our blood which, if not appropriately managed can lead to metabolic, physical and mental health issues<sup>(2)</sup>.

Our stress response requires a huge number of resources in the form of energy and nutrients to keep going, so the longer we are under stress the more resources we need. If we are not eating well, the body becomes increasingly unable to meet the demands placed on it. This can lead to worsening stress, increased anxiety, reduced energy and greater cravings for high energy foods, in the short term. In the long run, this may increase the risk of burn out, poor immune health, poor sleep quality, digestive health problems and more severe mood issues, such as depression<sup>(3)</sup>.

The below tried and tested tips aim to help you stick with your healthy eating goals. Even if you pick only one or two that you feel you can implement easily, this can help make all the difference to how you feel and cope with stress.

1. Eat the healthy foods first – if you still want the not so healthy food afterwards you are much less likely to overeat these.
2. Start the day with a meal containing protein, healthy fats and fibre – such as eggs on wholegrain toast, or overnight oats. This helps keep blood sugars stable across the morning, and helps to reduce snacking later in the day<sup>(4)(5)</sup>.
3. **EAT YOUR GREENS!** Dark/leafy Green vegetables are a rich source of calcium, magnesium, and B vitamins<sup>(6)</sup>; which are all needed to keep your brain and central nervous system firing on all cylinders; and vitamin C which helps keep our adrenals (which make our stress hormones) healthy. Try to have something green twice a day.
4. If you love your caffeine, try to avoid having this on an empty stomach. Caffeine makes us feel awake and energised by mimicking the physiological processes of the stress response<sup>(7)</sup>. Eating a protein containing snack or meal before having a tea or coffee helps slow absorption of caffeine by delaying gastric emptying<sup>(8)</sup>, which in turn helps slow the release of stress hormones.
5. Be prepared! Emotional, stress or 'I have no time' eating will happen so, carry tasty, healthy, 'grab and go' snacks with you at all times, so they are ready and waiting to nibble when needed. Nuts, seeds, hardboiled eggs, cheese, fruit, raw veg sticks, dark chocolate, oat cakes and peanut butter are all great choices.
6. It's ok to eat a little yummy, sweet food in emergencies or after a stressful day. Research even supports the benefits of consuming 'comfort' foods on blunting our stress response, in the short term<sup>(9)(10)</sup>! To avoid weight gain, keep portions small (one cupped handful/fist) and eat a protein and fat containing meal or snack first, or as part of the same meal.

## Eating Healthily when under stress

7. Don't have it in the house! As a rule, if you don't want to eat it don't buy it, this way you won't be tempted. If you really want something and you have to go out or make it yourself, it is much less likely you will eat it. The same applies at work. If unhealthy snacks, treats and foods are being brought in, request to put these in a cupboard or out of sight so they are less accessible. Filling your environment with healthy foods means these are much more likely to be what you consume<sup>(11)(12)</sup>.
8. Try to recognise and only eat when you are hungry, rather than feeling emotional or eating because the food is in front of you. Once your stomach starts to rumble sit down and eat something healthy and nutritious.
9. If you are unable to stop to eat when you are hungry consuming small healthy snacks at regular intervals can help prevent becoming ravenous when you haven't had time to eat, and you will be less likely to fill up on any unhealthy foods in your vicinity.
10. Be kind to yourself. You are doing the best you can so, whenever you can across the day, stop, take some deep breaths into your belly and say to yourself 'I'm ok, I'm doing a great job'. This help reduce stress and foster resilience, even when faced with the toughest situation<sup>(13)(14)</sup>.

# Eating Healthily when under stress

## References

1. Reagan LP, Grillo CA, Piroli GG. The As and Ds of stress: Metabolic, morphological and behavioral consequences. Vol. 585, *European Journal of Pharmacology*. Elsevier; 2008. p. 64–75.
2. Singh K. Nutrient and Stress Management. 2016 [cited 2020 Apr 22]; Available from: <http://dx.doi.org/10.4172/2155-9600.1000528>
3. Østergaard L, Jørgensen MB, Knudsen GM. Low on energy? An energy supply-demand perspective on stress and depression. Vol. 94, *Neuroscience and Biobehavioral Reviews*. Elsevier Ltd; 2018. p. 248–70.
4. Chevrier G, Mitchell P, Beaudoin M-S, Marette A. Impact of Dietary Proteins on Energy Balance, Insulin Sensitivity and Glucose Homeostasis. In: *The Molecular Nutrition of Amino Acids and Proteins*. Elsevier; 2016. p. 241–64.
5. Williams G, Noakes M, Keogh J, Phd PF, Clifton P. High protein high fibre snack bars reduce food intake and improve short term glucose and insulin profiles compared with high fat snack bars. Vol. 15, *Asia Pac J Clin Nutr*. 2006.
6. Nutrient analysis of fruit and vegetables: Summary report [Internet]. 2013 [cited 2020 Apr 22]. Available from: [www.dh.gov.uk/publications](http://www.dh.gov.uk/publications)
7. Lovallo WR, Farag NH, Vincent AS, Thomas TL, Wilson MF. Cortisol responses to mental stress, exercise, and meals following caffeine intake in men and women. *Pharmacol Biochem Behav*. 2006 Mar 1;83(3):441–7.
8. Giezenaar C, Lange K, Hausken T, Jones K, Horowitz M, Chapman I, et al. Acute Effects of Substitution, and Addition, of Carbohydrates and Fat to Protein on Gastric Emptying, Blood Glucose, Gut Hormones, Appetite, and Energy Intake. *Nutrients* [Internet]. 2018 Oct 7 [cited 2020 Apr 22];10(10):1451. Available from: <http://www.mdpi.com/2072-6643/10/10/1451>
9. Finch LE, Tiongco-Hofschneider L, Tomiyama AJ. Stress-Induced Eating Dampens Physiological and Behavioral Stress Responses. In: *Nutrition in the Prevention and Treatment of Abdominal Obesity*. Elsevier; 2019. p. 175–87.
10. Mason AE, Jhaveri K, Schleicher S, Almeida C, Hartman A, Wackerly A, et al. Sweet cognition: The differential effects of glucose consumption on attentional food bias in individuals of lean and obese status. *Physiol Behav*. 2019 Jul 1;206:264–73.
11. Hunter JA, Hollands GJ, Couturier DL, Marteau TM. Effect of snack-food proximity on intake in general population samples with higher and lower cognitive resource. *Appetite*. 2018 Feb 1;121:337–47.
12. Baskin E, Gorlin M, Chance Z, Novemsky N, Dhar R, Huskey K, et al. Proximity of snacks to beverages increases food consumption in the workplace: A field study. *Appetite*. 2016 Aug 1;103:244–8.
13. Li Y, Deng J, Lou X, Wang H, Wang Y. A daily diary study of the relationships among daily self-compassion, perceived stress and health-promoting behaviours. *Int J Psychol* [Internet]. 2019 Jul 31 [cited 2020 Apr 22];jjop.12610. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/ijop.12610>
14. Hu Y, Wang Y, Sun Y, Arteta-Garcia J, Puroil S. Diary Study: the Protective Role of Self-Compassion on Stress-Related Poor Sleep Quality. *Mindfulness* (N Y). 2018 Dec 1;9(6):1931–40.