

# MANAGING STRESS

When people think of stress, thoughts naturally turn to its negative impact on mental health. Although a little bit of stress is good for helping us prepare for tasks like taking an exam or catching a commuter train on time, chronic stress can be harmful. The good news is that there are ways to become more resilient in managing stress, including adding healthy habits into your daily routine, like exercise, meditation and even eating the right foods.



## HEALTHY HABITS TO HELP WITH STRESS

**Eat for optimal health** Choose a balanced diet to have the right array of nutrients that help aid in being resilient to stress. Include B vitamins found in fruits and vegetables, antioxidants like vitamin E found in almonds, iron in shellfish and green leafy veggies, and magnesium in whole grain cereals and almonds. A study<sup>1</sup> found that people who follow plant-rich vegan diets report having a lower stress level.



**Build daily routines** Set definite times for meals and snacks. Aim to go to bed at the same time every night. Activity and sleep trackers can be a good start to see patterns in your habits and look for ways to be consistent in positive behavior.



**Snack mindfully** Eat when you are hungry, not when you are bored. Aim to snack with intention. Prepare snacks in sensible portions ahead of time. For example, a serving of nutrient-dense almonds is as easy to remember as 1-2-3: 1 healthy handful equals 23 almonds.



**Learn to meditate** Finding a mini break to meditate for as little as five minutes per day can help in coping with stress. A lot of apps are available with guided breathing and relaxation techniques.

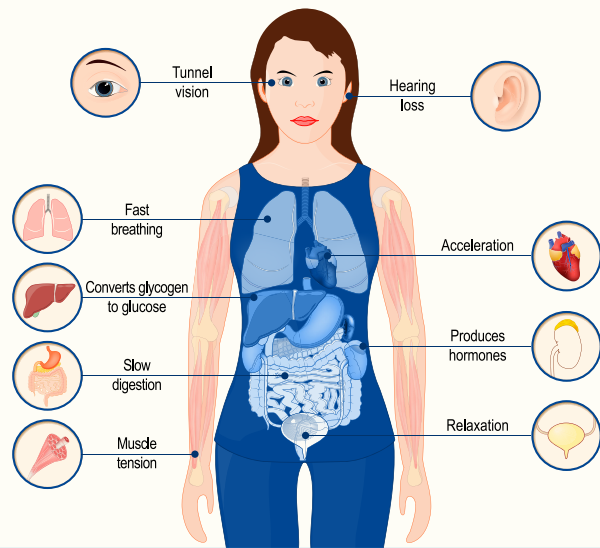
**Move, move, move** However you choose, moving your body for at least 30 minutes per day can release endorphins, which are stress-reducing hormones.

**Be a planner** Writing down a plan can help reduce stress by helping you organise your time and thoughts. Add to your daily planner times for self-care like exercising or stretching breaks, and more. Meal planning, in particular, is a good habit to get into, so you're not left scrambling for meals, and can help you eat more nutritiously.



1. Beezhold B, Radnitz C, Rinne A, DiMatteo J. Vegans report less stress and anxiety than omnivores. *Nutr Neurosci*. 2015 Oct;18(7):289-96. <https://pubmed.ncbi.nlm.nih.gov/25415255/>

## HOW THE BODY RESPONDS TO STRESS



Like everything related to the human body, the stress response is no different: the systems in place to keep the body healthy and operating at its best are numerous and interconnected! The musculoskeletal, respiratory, cardiovascular, gastrointestinal and endocrine systems all react to a stress trigger instantaneously. This is the well-known evolutionary “flight or fight” response, which prepares the body for action and readies it against potential physical harm—even if the stress trigger is mental or emotional.

In fact, mental stress is among the psychosocial factors thought to contribute to cardiovascular disease (CVD) risk. Heart rate variability (HRV), a measure of the fluctuation in time between consecutive heartbeats, is an important indicator of the cardiovascular system’s response to stress, and it is thought that diet and other lifestyle factors might impact HRV. Higher HRV represents greater adaptability of the heart in response to environmental and psychological challenges, while low HRV is linked to CVD and sudden cardiac death. It’s useful to think of having a higher HRV as the heart being able to switch gears faster in response to demands on the body, which means more resilience during periods of stress.

2. Vita Dikariyanto, Leanne Smith, Philip J Chowienczyk, Sarah E Berry, Wendy L Hall. Snacking on whole almonds for six weeks increases heart rate variability during mental stress in healthy adults: a randomized controlled trial. *Nutrients* 2020, 12(6), 1828; <https://doi.org/10.3390/nu12061828>.



## MAKING THE SNACK SWITCH TO ALMONDS

A novel study<sup>2</sup> suggests replacing less healthy snacks with almonds may improve the heart’s resilience to mental stress. This finding was part of a study where participants with above average cardiovascular disease risk ate a daily snack of almonds or a calorie-matched snack providing 20% of each participant’s estimated daily energy needs. The study was conducted among 107 British men and women, aged 30 to 70 years, by King’s College London.

During this test, researchers measured participants’ reactions to stress during a mental stress test: real-time heart rate and heart rate variability (HRV) at rest were measured using a mental task that simulated a short period of mental stress. Participants in the almond group showed better heart rate regulation compared to the control group, demonstrated by significant differences in beat-to-beat intervals, which is a measure of HRV.

The research suggests that the simple swap of eating almonds in place of typical snacks may diminish the drop in HRV that occurs during mental stress, thereby improving cardiac function. A daily almond snack swap has the potential to increase cardiovascular resilience to mental stress.

As with all studies, there were some limitations. There were some differences between groups in cardiometabolic disease risk factors at baseline. Also, the participants were free-living, and although almond compliance was confirmed, it is possible there is potential for some inaccuracies in their reported food intake. Finally, more research is required because the mechanisms for the increase in HRV are unknown.

**Although the exact reason why almonds improve HRV and resilience to stress is unknown, almonds contain numerous nutrients that are thought to benefit heart health in every healthy handful: 4g of fibre, 14 grams of unsaturated fat and only 1 gram of saturated fat, 81mg of magnesium, 220mg of potassium and 7.7mg of vitamin E.**