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HEALTHY EATING

Suffering something chronic

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Simple lifestyle steps can help to reduce the risk of developing a long-term condition.

If you've ever twisted your knee while out running, or scratched your arm on a branch while gardening, you'll notice that the body reacts instantly; the injury site starts to swell, becoming hot and painful. This response is designed to prevent the spread of infection¹, and start the process that leads to an eventual return to health². Exposure to viruses, bacteria¹ and pollution³ can also cause a similar, less visible reaction.

In the short-term, this process enables the body to quickly revert to wellness. Problems can arise, however, when the body is subjected to an inflammatory response day in and day out, for years at a time. This can happen because of poor diet, [food intolerances](#), a sedentary lifestyle or ongoing infection^{4,5}.

Helping the body to heal from a chronic inflammatory state is important; the World Health Organisation states that chronic diseases underpinned by a low-grade inflammation present the most severe threat to health, with their prevalence set to increase steadily over the next three decades². Current estimates are that 60% of deaths occur as a result of non-contagious, inflammatory conditions in an ageing population, giving rise to the term ‘inflammaging’^{4,6}.

Cardiovascular (CVD) related conditions as well as the following illnesses can all be linked to chronic ‘inflammaging’^{5,6}:

- depression
- [type 2 diabetes](#)
- respiratory illness
- allergies
- joint problems
- [some cancers](#)
- autoimmune disease

However the following problems that can’t be shaken off may also signal the presence of inflammation in any age group²:

- general aches and pains
- daytime lethargy
- inability to sleep
- stiff joints
- [digestive discomfort](#)

- putting on or being unable to lose excess weight
- persistent or regular infections
- frequent colds

Independent risk factors for inflammation

Age: the acute response to injury becomes inefficient which can result in greater risk of infection and a less robust healing response to the injury⁶. Decreasing levels of sex hormones may also play their part².

BMI: carrying excess weight (particularly around the middle) can be problematic. Chemicals known as inflammatory cytokines are released from fatty tissue causing stress to the body⁷.

Diet: eating industrially produced foods high in trans-fats and refined carbohydrates as well as consumption of sugary drinks can also increase production of cytokines². Additionally, this type of food makes obesity more likely.

Stress: people who sleep badly, as well as night shift workers are particularly at risk of suffering from chronic illness, with any interference to sleep an independent risk factor for inflammation².

Taking a nutritional therapy approach

Around 70% of the immune system is found within the gut, which makes it fundamentally important for effectively and efficiently managing how the body responds to inflammatory triggers. Imbalances in gut bacteria can result in a build-up of substances known as endotoxins (read more about these in ‘gut feeling’ below). [Good gut health](#), on the other hand, helps promote tolerance to foods and environmental triggers and also helps limit autoimmunity (where the body turns on its own tissues)⁸.

[Registered nutritional therapists](#) regularly look to optimise gut health to help support or prevent chronic conditions. This may involve testing to identify food

intolerances or imbalances between ‘good’ and ‘bad’ gut bacteria. Eliminating ‘trigger’ foods may also play a part.

Strategies to help reduce inflammation include:

- **Eat a wide range of fruit and vegetables daily.** Each colour (and therefore, variety) contains different healing phytonutrients, so aim for 10 different portions every day. Brassicas such as cabbage, cauliflower, pak choi and broccoli (lightly steamed) are thought to be particularly helpful for tackling inflammation.
- **Look to include more Omega 3 fatty acids in the diet⁹** as the body can’t make these. Science shows that increased consumption of them is linked to reduced levels of inflammatory markers². Good sources include oily fish (try salmon, mackerel, anchovies, sardines or trout), eaten a couple of times per week. Grass-fed beef and enriched eggs also contain Omega-3. Flax and chia seeds, soybeans and walnuts offer plant sources. Other healthy fats include avocados, flax and olive oils – eat these regularly as part of a ‘Mediterranean-style’ diet.
- **Opt for foods with a low glycaemic load.** Foods higher in soluble fibre release their energy more slowly and help support healthy [weight management](#)².
- **Include nuts in your diet.** A study carried out just this year confirmed that nut consumption was associated with a reduced likelihood of putting on weight. It also confirmed that eating nuts is helpful for blood sugar control, by supporting healthy gut bacteria in addition to suppressing appetite. Researchers concluded that eating nuts could be useful for management of high blood pressure and other cardio-metabolic issues ¹⁰.
- **When it comes to a cuppa, choose green tea.** Rich in polyphenols, it has been linked to lowered levels of inflammation in studies on cells, animals and humans¹¹.
- **Consume ginger, cinnamon, garlic and turmeric.** These are antioxidants and may help prevent damage seen in joint conditions¹².
- **Introduce mung beans to your diet.** Mung beans have been used to treat mice suffering from infections in lab studies¹³. Clearly, the ability to apply the

results to humans in real life is limited, but these beans can provide a tasty, nutritious contribution to the diet, nevertheless.

- **Sesame oil has been found to help reduce inflammation** in cases of osteoarthritis¹⁷ 17 and CVD¹⁸.
- **Magnesium¹⁴, vitamins D¹⁵ and E, plus antioxidant minerals¹⁶, Zinc and Selenium may all be helpful in dampening down inflammatory reactions.** Contact a [registered nutrition professional](#) who is a member of a professional body, for advice on dietary sources, plus information on how to optimise nutrient absorption and supplement appropriately.



Non-nutritional influences to reduce inflammation

Fitness first

Science notes that using up energy while keeping fit helps dampen inflammation, whether weight loss occurs or not¹⁹. The exception to this is strenuous exercise, as it is known to result in leaky gut syndrome and compromised immunity in

endurance athletes²⁰.

Feel good factor

Mental strain can be a trigger for chronic illness, with scientists suggesting that cytokines affect the way the brain receives messages from the gut. This can result in [depression](#) if the problem is not resolved longer term²¹. Initiating the parasympathetic nervous system²² by stimulating the vagus nerve (through yoga, deep breathing, singing, massage and gentle exercise) can all help to promote healthy gut-brain messaging²³.

Gut feeling

Recent research has confirmed that any changes to the microbiome can leave individuals at risk of chronic conditions, due to substances called lipopolysaccharides (LPS) triggering the release of cytokines. Large amounts of LPS in the blood have been linked to immune system irregularities, with these substances deliberately used in research to provoke an inflammatory response for scientists to study²⁴.

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