

Autophagy and Fasting

Most recommended diets are associated with weight loss. What if you could eat in a certain way to activate our most anti-ageing pathway? What about practising with macronutrients and eating certain foods to optimise your health and longevity?

Autophagy is our most anti-ageing pathway

You have probably never heard of autophagy. It wasn't until 2016 when a Nobel Prize in Physiology + Medicine was awarded to Yoshinori Ohsumi for his discoveries.

Breaking it down into “auto,” meaning self, and “phagy,” denoting cell eating, Autophagy translates to “self-eating.” It's a beneficial process that involves the removal and recycling of the body's own tissue as a metabolic process.

Is autophagy Important?

Our cells are constantly being damaged through natural bodily processes: such as energy conversion, digestion and immunity. This happens even in healthy humans and is an important part of the cellular life cycle, which allows the regular generation of new, young cells that can perform optimally in our body.

However, with age, stress, increased exposure to food and chemicals, our cells can experience free radical damage, which in turn causes them to be compromised at a faster-than-normal-rate. As a result, the body needs some way of getting rid of these damaged cells via autophagy.

The body uses natural mechanisms to clear out damaged and under-performing cells. If these are not removed, they trigger inflammation in the body and prevent it from being able to efficiently carry out normal tasks. This then leads to the development of diseases.

The Benefits of Autophagy

There are many benefits to encouraging regular autophagy:

- Regulates cellular mitochondria, which improves energy production in the body
- Protects the nervous system and the immune system
- Protects against metabolic stress
- Encourages growth of new cells
- Helps improve digestive function
- Helps to protect our genes
- Increasing evidence that autophagy is a bona fide tumour suppressor pathway

How fasting + low protein cycling can stimulate autophagy

To encourage an advanced level of autophagy try practicing intermittent fasting. This self-digestion not only provides nutrients to maintain vital cellular functions during the fast, but also can rid the cell of superfluous or dead organelles, damaged proteins, and invading micro-organisms and oxidised particles.

This accelerates aging, can induce dementia, and increases the risk of cancer and other age-related diseases.

Research shows that 16 hour overnight intermittent fasts coupled with low protein days could be a great autophagic trigger. This involves alternating between periods of low protein consumption and

periods of moderate to normal protein consumption. When fasting, the levels of glucose in the body are low, and therefore, so is insulin. Lowered insulin triggers increased glucagon, the body's naturally produced hormone which can help stabilise blood sugar levels. The presence of this hormone signals the need for autophagy.

The connection to protein and the added benefits of protein cycling is that lowered protein levels also encourage the release of glucagon, as there is neither glucose nor protein for the body to use for energy. As a result, the glucagon levels increase and so does autophagy within the cells. Furthermore, without the intake of protein, the body will resort to recycling the protein that it has, to extract usable amino acids for future protein formation. This recycling process is also a critical component of autophagy.

Always consult your medical professionals before attempting a fast to stimulate Autophagy.