

Benefits of Fasting and Autophagy

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Fasting has become increasingly popular in the wellness circuit over the past few years, and for good reason. This natural method of healing and rejuvenating the body is actually nothing new. It is what our bodies do naturally when we are sick. Culturally, however, the food industry marketing campaigns have influenced us that we must eat three square meals a day to be healthy. According to recent research on fasting, this turns out not to be the case for everyone.

There are many types of fasting and each have their unique benefits. Today we are exploring the natural method of water fasting in order to put the body into the state of autophagy, for its health benefits.

In 2016, the Japanese scientist Yoshinori Ohsumi won the Nobel Prize in Physiology for his discovery of the mechanisms of autophagy, the process by which cells recycle their components, which is activated by fasting. In the 1960's, the term autophagy was originally coined by Christian de Duve. The word "autophagy" comes from the Latin word "auto" meaning self and "phagy" meaning eat. Ohsumi found that using baker's yeast cells undergoing starvation, the cells will digest and reuse their own damaged cells which allows them to survive. He discovered the genetics involved, the underlying mechanisms, and how this is happening in human cells. His work is key in understanding how autophagy can benefit us in many areas of health. Autophagy has been shown to be anti-aging, improve immune function, reduce cancer risk, and has also been shown to benefit neurodegenerative conditions such as Parkinson's and Alzheimer's.

The process of autophagy begins after 16 hours of water fasting and peaks at 48 hours, so for one to have one full day of autophagy, one can water fast for at least 3 days. During the 24–48 hour period, growth hormone increases which stimulates growth, protection of lean muscle mass, and many other repair mechanisms in the body. After 72 hours, stem cell regeneration begins which can stimulate growth of new tissues in the body wherever needed. The stem cells are activated once refeeding begins. One study showed that if one water fasts for 7 days once per year, one can reduce their risk of cancer by about 70%. Please note that it is advised to consult your doctor before undergoing any prolonged fasting regimen.

Research-Backed Benefits of Short Water Fasting

- Improved insulin sensitivity for better blood glucose control
- Rise in human growth hormone (HGH) by an average of 1225% in 24 hours
- Reduced blood pressure with a 7-day medically supervised water fast
- Stimulated immune stem cells upon refeeding in mice
- Anti-aging benefits as telomere length increases, protecting DNA
- Lowers mTOR, stimulates autophagy, improves mitochondrial repair
- Reduces circulating amyloid beta plaques and fiber formation involved in Alzheimer's

In short, the benefits of water fasting are now well established in research. When the body does not receive food, it sends signals to become more efficient and cleans out old cells which give us a renewed sense of health and vitality. We can use this technique of water fasting for 1 day for a quick reset, 3 days, or 7 days or more for more significant health benefits. Remember to check with your physician before embarking on any new fasting regimen.

References

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