

Fasting's Impacts on Inflammation and the Immune System

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Fasting is a practice that involves refraining from consuming food and sometimes beverages for a specific duration. There are different types of fasts, each with its distinct approach and purpose. Some of the more common types include:

1. **Water Fasting:** This involves consuming only water for a specified period, usually lasting one to three days.
2. **Intermittent Fasting:** Intermittent fasting restricts food intake to a specific daily time window, typically involving 16-20 hours of fasting and 4-8 hours of eating.
3. **Alternate Day Fasting:** In this approach, fasting occurs every other day, with some variations allowing limited calorie intake on fasting days.
4. **Religious Fasting:** Fasting is observed as a spiritual discipline in some religions, such as during Ramadan.
5. **Partial Fasting:** Certain foods are restricted during partial fasting.

Fasting can help support the immune system by reducing inflammation, a risk factor for many diseases, and stimulating the production of new white blood cells. Some of the relevant research is summarized below:

1. **Intermittent fasting and immunomodulatory effects: A systematic review**

This systematic review looked at how intermittent fasting (IF) affects the immune system. It found that IF can offer health benefits beyond just weight loss. It helps regulate our body's internal

clock, improves the movement of immune cells, and reduces inflammation. IF also shows potential in helping with surgical stress, hormone problems, anxiety, and thinking disorders. Overall, this review suggests that IF could be good for our health, especially when it comes to boosting our immune system.

2. **Innate immune remodeling by short-term intensive fasting,**

This study explored how fasting for 72 hours impacted the immune system in humans. They discovered that fasting made changes in the genes and proteins of immune cells, making them better at fighting infections. Fasting also boosted a process called autophagy (which is like cell cleaning) and decreased cell death, resulting in more healthy immune cells. It also increased the number and effectiveness of a type of immune cell called neutrophils. These findings suggest that short-term fasting could improve our immune function.

3. **Fasting intervention and its clinical effects on the human host and microbiome.**

Research has shown that cutting back on food through fasting can make us healthier and potentially live longer. The balance of microorganisms in our gut, called gut microbiota, plays a big role in keeping us healthy and maintaining a balanced immune system.⁴ When this balance is disrupted, it can lead to various diseases. Fasting can help

improve how insulin works, control blood sugar, and reduce inflammation, all of which are influenced by our gut microbiota. Fasting can also increase the presence of gut bacteria that fight inflammation, like *Faecalibacterium*, which might be why fasting is good for our health.

Fasting can provide many benefits and it is important to check with your healthcare practitioner prior to initiating any new health care regime or practice.

Practitioners trained by the Metabolic Terrain Institute of Health take a scientific approach to working with patients who wish to implement fasting as a treatment option. It is essential to consult with a MATC Certified™ Practitioner to properly test, assess and address each patient before and during implementing therapeutic fasting interventions, or at the very least consult with a practitioner or health care provider familiar with your specific state of metabolic health. It is crucial to work with a certified practitioner and follow a proper fasting protocol, especially when implementing fasting alongside other treatments.

References:

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4. Wu HJ, Wu E. The role of gut microbiota in immune homeostasis and autoimmunity. *Gut Microbes.* 2012 Jan-Feb;3(1):4-14.