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Prolonged Water-Only Fasting Is Again Shown to Be Safe

Deciphering Fact from Frenzy

by Toshia R. Myers, PhD, and Justin Wise, ND

Prolonged water-only fasting was recently cast in a negative light after a paper in *Molecular Metabolism* (Commissati, et al., 2025)[1] reported that the therapy increases inflammation and may be harmful. Press quotes from senior author Luigi Fontana, MD, emphasized that the result ran counter to the study's hypothesis that fasting would be anti-inflammatory and instead indicated the intervention might raise cardiovascular risk in some people.[2] The coverage left many questioning how a long-standing, medically supervised treatment with documented benefits and a strong safety record could suddenly be portrayed as harmful.

Remarkably, the study was conducted at TrueNorth Health Center (TNHC), a residential facility specializing in medically supervised, prolonged water-only fasting and whole-plant-food refeeding for over 40 years. TrueNorth cofounder Alan Goldhamer, DC, a coauthor on the paper, has reported supervising more than 25,000 fasting patients and emphasizes that the intervention has peer-reviewed data showing that it is safe when properly implemented by trained clinicians in appropriately selected individuals.[3] Here, we aim to place the Commissati, et al. findings in context with existing clinical data to clarify what the headlines overlooked and help readers distinguish scientific evidence from media sensation.

Why inflammation isn't always harmful

Inflammation is commonly equated with harm, but it is not always harmful. In fact, it is a coordinated immune response essential for containing damage, repairing tissue, and restoring normal function during infection, trauma, or other stress. The inflammatory response varies by duration (acute vs. chronic), severity (mild vs. severe), location (local vs. systemic), and outcome (resolution vs. persistence). For example, the acute, high-grade inflammation in response to a localized infection is fundamentally different from the chronic, low-grade inflammation observed in obesity. Chronic inflammation can drive pathological tissue remodeling and worsen health, whereas acute inflammation is a dynamic process that is essential to maintaining health.

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How inflammation is measured

Because inflammation is complex, clinicians rely on surrogate markers in blood tests. The most widely used test for inflammation is C-reactive protein (CRP), a protein produced by the liver in response to signaling molecules (cytokines) such as interleukin-6, which are upregulated by many inflammatory triggers. CRP levels above ~10 mg/L are typically used to flag inflammation in response to acute pathology, but the test cannot identify the site or cause. High-sensitivity CRP (hsCRP) detects lower concentrations and is used for cardiovascular risk assessment. Chronic elevations above 3 mg/L are considered high risk when confirmed on repeat testing outside of acute stressors, such as infection, injury, or inflammatory disease. The adaptations required for the body to adapt to prolonged water-only fasting may be such a stressor.

What the Commissatti, et al. study found

Commissatti, et al.[1] hypothesized that fasting would produce anti-inflammatory effects. To test this hypothesis, the study measured more than 1,000 preselected proteins found in the blood of 20 adults at baseline, after an average of 10 days of water-only fasting, and after an average of 5 days of stepwise whole-plant-food refeeding. The study identified an increase in several proteins linked to inflammatory signaling during fasting. To corroborate, hsCRP was also measured, rising from 1.7 mg/L at baseline to 3.9 mg/L during fasting before returning to baseline level or lower after refeeding in nearly all participants. Although the relative increase appears large (129%), the absolute values remained well below thresholds for acute infection or injury and were short-lived.

The broader scientific evidence on inflammation during and after water-only fasting

Far from being a surprise, these findings align with more than a decade of research on prolonged water-only fasting showing modest increases in acute-phase inflammatory proteins such as CRP.[4,5,6,7,8] Evidence consistently shows these signals decline toward baseline during refeeding[6,8,9,10,11,12] and fall below baseline

within six weeks,[9,10,12] producing a net anti-inflammatory effect alongside improvements in weight, visceral fat, blood pressure, lipid profiles, and fatty liver index.[9,11,13] *(Figure 1)* Moreover, data indicate that the higher hsCRP is at baseline, the larger the decrease during refeeding.[7] Because the Commissatti, et al. study did not extend into this later window, its findings should be interpreted alongside studies that include refeeding and follow-up data. Unfortunately, a recent scoping review[14] failed to capture this perspective, emphasizing fasting-induced increases while overlooking the consistent evidence that these changes are transient, resolve with refeeding, and coincide with cardiometabolic improvements.

These data demonstrate that a transient increase in inflammatory markers during prolonged water-only fasting and refeeding is well-described. Moreover, there is no clinical evidence suggesting that temporary elevations in pro-inflammatory markers during fasting translate into increased cardiovascular risk. Furthermore, it may even be expected that CRP should rise with fasting since it is part of the complement system responsible for tagging damaged cells and debris for removal and since fasting is understood to stimulate clean-up processes like autophagy.

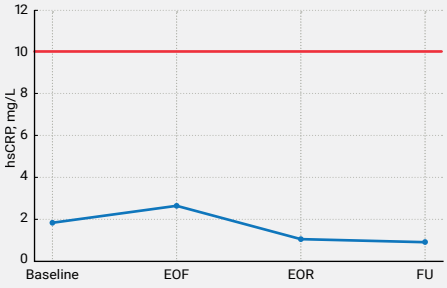

Figure 1. hsCRP after fasting, refeeding, and maintenance diet. End of Fasting, after approximately 14 days of fasting; End of Refeeding, after approximately 6 days of refeeding; Follow-Up, approximately 45 days after refeeding. Data from Gabriel, et al. 2022.[1]

Risks associated with medically supervised, prolonged water-only fasting

Although a modest increase in inflammation is unlikely to increase cardiovascular risk, arrhythmia is a potentially serious complication that is uncommon but known to occur during prolonged water-only fasting. The medically supervised protocol in question protects against this risk by excluding people with high-grade arrhythmias and by monitoring for signs of arrhythmia on a daily basis during the intervention. Our data indicate that arrhythmia occurs in less than 1% of all visits.[3] Moreover, arrhythmia during fasting typically resolves with the introduction of vegetable broth or juice, and serious adverse events due to arrhythmia or other cardiovascular symptoms are rare. The exact cause of arrhythmia varies from person to person, but potential contributors during fasting include dehydration, electrolyte imbalance, or sympathetic nervous system activation.

While no intervention is risk-free, published reports suggest that medically supervised, prolonged water-only fasting followed by whole-plant-food refeeding is low-risk in appropriately selected individuals receiving the support of a trained fasting supervisor.

Nevertheless, the medically supervised protocol evaluated by Commissatti, et al. has been used extensively over four decades and in more than 25,000 patients. It has also been investigated in multiple clinical trials. With careful prescreening, daily monitoring, and structured refeeding, it is generally well tolerated. Most adverse events are mild and transient, and serious events for any reason are rare, whereas clinically meaningful improvements in blood pressure and weight are common. While no intervention is risk-free, published reports suggest that medically supervised, prolonged water-only fasting followed by whole-plant-food refeeding is low-risk in appropriately selected individuals receiving the support of a trained fasting supervisor. This safety record provides essential context for interpreting biomarker changes, reinforcing the critical importance of protocol design and clinical oversight with regard to patient outcomes.

Conclusion

Prolonged water-only fasting should be undertaken only with expert medical supervision to manage known risks such as dehydration, electrolyte imbalance, and refeeding syndrome. These established risks, however, should not be conflated with short-term, reversible biomarker changes, particularly when no adverse clinical events occur. In this context, modest increases in inflammatory markers during fasting are more plausibly part of an adaptive response to metabolic stress, potentially reflecting immune modulation or tissue remodeling. Although the long-term significance of these acute changes remains uncertain and further study may provide greater clarity, they should be weighed alongside repeated reports of clinical benefit. Importantly, these results must be interpreted within a framework that distinguishes transient physiological responses from sustained changes with meaningful clinical impact.

For a list of references used for this article, please email jziegler@HealthScience.org.

DR. TOSHIA MYERS is the Executive Director and Research Director of the TrueNorth Health Foundation (TNHF). Under her direction, TNHF has developed a pioneering research program that conducts cost-effective clinical trials into the sustained effects of prolonged water-only fasting on various aspects of human health. She has also expanded TNHF's educational outreach efforts, including clinician and scientist training. Dr. Myers is a renowned speaker and coauthor of over 20 peer-reviewed articles, a textbook chapter, numerous popular articles, and the groundbreaking book, *Can Fasting Save* Your *Life?*

Dr. Myers holds a PhD in biological sciences from Columbia University and completed postdoctoral fellowships at the CDC in virology and the University of Copenhagen in epigenetics. She believes that everyone can benefit from the experiential knowledge that comes with prolonged water-only fasting.

PHOTO BY DR. LISA ACCOLLA

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