



Weekly Health Digest

August 23, 2026 | Fasting Diets & Autoimmune Disease

Article: Fasting, ketogenic, and anti-inflammatory diets in multiple sclerosis: a randomized controlled trial with 18-month follow-up

Authors: Lina S. Bahr, Judith Bellmann-Strobl, Daniela A. Koppold, Rebekka Rust, Tanja Schmitz-Hübsch, Maja Olszewska, Jean Stadlbauer, Markus Bock, Michael Scheel, Claudia Chien, Jan Multmeier, Alexander Krannich, Andreas Michalsen, Friedemann Paul, Anja Mähler

Journal: BMC Nutrition, 2025;11:167

Source: <https://doi.org/10.1186/s40795-025-01156-5>

Note: two study authors disclose ties to fasting-related organizations (a fasting medical association, an intermittent-fasting app, and a plant-based supplement company). The funders had no role in the study's design, analysis, or publication.

What Did Scientists Study?

Researchers in Germany ran an 18-month randomized controlled trial. They followed 105 people with relapsing-remitting multiple sclerosis. People were split into three groups. One group ate a standard healthy diet. One group followed a periodic fasting plan, part of the same family as a fasting-mimicking diet. One group followed a low-carb ketogenic diet. Scientists tracked brain scans, blood markers, mood, and thinking skills over the full 18 months.

Why Does This Matter?

Multiple sclerosis is an autoimmune disease. The immune system mistakenly attacks the protective coating around nerve fibers in the brain and spinal cord. This can cause fatigue, numbness, vision changes, and trouble walking. Standard treatments use medicine to calm the immune system down. Scientists want to know if diet can help too, as a partner to medicine, not a replacement for it.

What Did They Find?

Eighty-one people finished the full 18 months. New brain lesions on MRI scans did not increase on average in any of the three groups, including the standard diet. That is a good sign that the disease stayed stable across the board.

The fasting group showed some extra benefits. A blood marker of nerve damage, called neurofilament light chain, dropped after 9 months. Depression scores also improved: by 18 months, the fasting group's scores dropped 22 percent, a big enough change to matter day-to-day, while the standard-diet group's scores got 29 percent worse. That difference between groups was statistically real, not just chance. People on the ketogenic diet saw a boost in thinking speed and memory, measured with a standard cognitive test.

All three groups, including the standard diet, saw better weight, cholesterol, and blood pressure numbers within the first 9 months. Belly fat dropped the most in the ketogenic group. Blood pressure improved across all three diets, though which number (top or bottom) improved most varied by group.

What Can You Do?

Talk with your neurologist or care team before changing your diet, especially if you live with MS or another autoimmune condition. Fasting and ketogenic diets are not a substitute for disease-modifying medicine.

If your doctor approves, ask about a supervised periodic fasting or low-carbohydrate plan. Track your energy, mood, and lab work together with your care team along the way.

Bottom Line

In this trial, fasting and ketogenic diets did not shrink existing MS damage, but they helped hold the disease steady and came with real bonuses for mood, thinking, and heart health.

Definitions

Randomized controlled trial (RCT): A study where people are randomly placed into groups. One group gets a treatment. The other gets a different treatment or none at all. This helps scientists know if a treatment truly works. [Wikipedia](#)

Relapsing-remitting multiple sclerosis (RRMS): The most common form of MS. People have flare-ups of symptoms, called relapses, followed by periods of recovery, called remission. [Wikipedia](#)

Fasting-mimicking diet: An eating pattern that copies the effects of fasting. It usually involves very low-calorie meals for several days in a row, repeated every few weeks or months. [Wikipedia](#)

Ketogenic diet: A very low-carbohydrate, high-fat diet. It pushes the body to burn fat for fuel instead of sugar. [Wikipedia](#)

Multiple sclerosis (MS): A disease where the immune system attacks the protective coating around nerves in the brain and spinal cord, disrupting nerve signals. [Wikipedia](#)

Autoimmune disease: A condition where the body's immune system mistakenly attacks its own healthy tissue. [Wikipedia](#)

Neurofilament light chain (NfL): A protein that leaks into the blood when nerve cells are damaged. Doctors use it as a marker to track nerve injury over time. [Wikipedia](#)