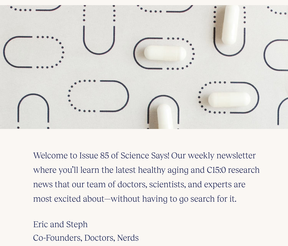
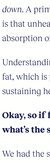
# How Fatty15 Solves The High Fat Conundrum

April 21, 2024



Welcome to Issue 85 of Science Says! Our weekly newsletter where you'll learn the latest healthy aging and C15:0 research news that our team of doctors, scientists, and experts are most excited about—without having to go search for it.

Eric and Steph
Co-Founders, Doctors, Nerds



What Dr. Stephanie Venn-Watson, our co-founder and author of over 80 peer-reviewed scientific publications, is reading.

HEALTHY AGING

## A Smarter C15:0 To Outwit Bully Fats

In our last issue (April 7th), we talked about the High Fat Conundrum, which showed how high fat diets may actually *lower* our C15:0 levels. Since C15:0 is an essential and healthy fat that supports our long-term health, this week we're sharing the decade of research that solved this conundrum: a smarter C15:0.

**Great! What is the High Fat Conundrum again?**

When mice are fed a high fat diet, not only do they develop a myriad of metabolic conditions, their C15:0 levels actually *go down*. A primary proposed reason for declining C15:0 levels is that unhealthy "bully" fats in the diet outcompete for the absorption of C15:0.

Understanding that our main dietary source of C15:0 is dairy fat, which is pre-mixed with these bully fats, this makes sustaining healthy C15:0 levels an uphill battle.

**Okay, so if foods with C15:0 also come with bully fats, what's the solution?**

We had the same question! It took a minute. Well, actually, it took nearly a decade, but we figured out how to provide a C15:0 ingredient that could outsmart bully fats.

**Step 1. Provide a C15:0 ingredient that is readily bioavailable.** In foods, long-chain fatty acids (including C15:0) are tied up in complex lipids, called triacylglycerides. These types of triacylglycerides are not absorbable, which means that our gut enzymes have to break these complex lipids down into free fatty acids, which can then be absorbed.

So, we gave our pure C15:0 ingredient a bioavailability fastpass by making it a readily absorbable free fatty acid. So long, bullies. Hello, fatty15.

**Step 2. Determine the optimal active levels of our pure & bioavailable C15:0.** We then led a slew of studies that consistently showed we need at least 20 μM of C15:0 in our bodies to support our long-term health and wellness. This included studies showing how our pure & bioavailable C15:0 ingredient, at levels of 20 μM or more:[1]

- Strengthens cells by 80%.
- Repairs mitochondrial function by 45%.
- Results in 36+ clinically-relevant cellular benefits.
- Activates receptors that support our metabolic, liver, heart, and immune health - along with deeper sleep and calmer mood.

**Step 3. Determine the optimal dose of our pure & bioavailable C15:0.** Once optimal active C15:0 levels were confirmed, we then led studies to understand what daily dose of our ingredient was needed to achieve at least 20 μM of circulating C15:0.

Ready to do some math? Of course you are. We found that for every 100 mg oral dose of our smarter C15:0 ingredient, our C15:0 levels increase by approximately 10 μM, regardless of diet.

Almost all people have at least 10 μM of baseline C15:0 in their bodies. That is why our recommended dose is a single 100 mg capsule per day - which raises the average person's C15:0 levels to at or above that target 20 μM level (which is equal to about 5 μg/ml).

**Step 4. Take your daily smart C15:0 (aka fatty15), sit back, and enjoy a longer and healthier life.**[1] Yeah, there's no sitting back. For our customers, fatty15 is enabling you to not sit back, but to do *more*. More of the things you enjoy. Every day (truly), we hear about how fatty15 is helping people get out and about again. Further runs with less pain, more tee time, and more tea time.

**For us, there's no sitting back, either.** We, now along with a global team of independent scientists, are continuing to advance the science on C15:0. And by doing so, we're uncovering more about how essential C15:0 is to our health. This work includes studies showing that our pure & bioavailable C15:0 ingredient in fatty15:[2]

- **Reverses six out of 12 hallmarks of aging,** which are core mechanisms of aging at the cellular level.
- **Boasts 36+ longevity-supporting cell-based activities** that outperformed the leading longevity molecules rapamycin, metformin and acarbose.
- **Supports healthy metabolism,** healthy liver function, healthy cholesterol, and a healthy microbiome.

And we're just getting started. Thanks for being on this health journey with us. You can nerd out on all of the peer-reviewed C15:0 science at DiscoverC15.com.

**Testing your C15:0 levels.**

As part of our ongoing commitment to data-driven health, we are working with fellow do-gooders to enable at-home testing of your C15:0 levels. This will make it even easier to measure and monitor your C15:0 levels to personalize your fatty15 journey over time. Stay tuned for more news on this exciting front.

In the meantime, have a great week, everyone!

## Dive deeper into the science

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