

# Strokes Hit When Least Expected

Robert Ferguson

It was a Tuesday morning, and I was on the phone with my college friend, Simon B. We laughed, reminisced, and talked about business and relationships. Before we hung up, Simon reminded me that he was planning to fly from Indiana to California, get a hotel for six months, and hire me as his nutritionist, health, and weight loss coach. Every time he mentioned this, I'd tell him the same thing: he didn't need to wait; he could get started right away.

Two days later, around 9:00 AM, my phone rang. It was Simon's wife. I cheerfully asked what I owed the pleasure, and her response shook me to my core: "I didn't want you to hear about this on Facebook, but Simon died last night. He had a blood clot that caused a massive stroke, and he died."

My heart sank. I was devastated. Like so many others, Simon had put off improving his health. His story is one of countless examples of lives cut short by stroke, many of which could have been avoided.

**Inflammation is the fuel, and omega-3 deficiency removes the brakes; together, they create the perfect storm for stroke. Closing this gap through diet and supplementation can be one of the most powerful, natural ways to lower stroke risk.**

Understanding how common stroke is today, the role of inflammation and nutrition, and the types of strokes that exist can save lives.

## Stroke in 2025: Quick Facts

- In the United States, more than **795,000 people** have a stroke each year, and about **87% are ischemic** (caused by a blockage).
- In **2022**, stroke caused **165,393 deaths** in the U.S., with an age-adjusted death rate of **39.5 per 100,000**.
- Someone in the U.S. has a stroke about **every 40 seconds**.

## The Missing Link: Inflammation, Omega-3s, and Stroke

Most people think of strokes as sudden events, but long before the moment they strike, silent forces are at work. Two of the biggest are **chronic inflammation** and **insufficient omega-3 fatty acids**.

### Inflammation: The Hidden Trigger

- Chronic inflammation damages blood vessel walls, leading to plaque buildup and rupture, the spark behind many ischemic strokes.
- It makes blood "stickier," raising the risk of clots that can block brain arteries.
- High inflammation also worsens outcomes after a stroke, increasing brain injury and slowing recovery.

## Omega-3 Deficiency: Removing the Brakes

- Omega-3s, specifically **eicosapentaenoic acid (EPA)** and **docosahexaenoic acid (DHA)**, produce compounds that resolve inflammation, while low levels tip the balance toward pro-inflammatory omega-6 products.
- Insufficient omega-3s mean stiffer red blood cell membranes, reduced oxygen delivery, and greater blood pressure and clotting risks.
- Higher omega-3 levels are associated with a lower risk of stroke, especially ischemic stroke.

**Bottom line:** Inflammation is the fuel, and omega-3 deficiency removes the brakes; together, they create the perfect storm for stroke. When unchecked, this combination silently damages blood vessels, increases clot formation, and accelerates the narrowing of arteries. The result is a higher likelihood of sudden, life-altering—or even life-ending—strokes. The good news is that by lowering inflammation and restoring healthy omega-3 levels, you can take back control of your vascular health and dramatically reduce your risk.

## Types of Strokes You Should Know

1. **Ischemic stroke (most common):** A blood clot blocks an artery that feeds the brain. Accounts for ~87% of all strokes.
2. **Hemorrhagic stroke:** A blood vessel ruptures and bleeds into or around the brain.
  - **Intracerebral hemorrhage (ICH)**
  - **Subarachnoid hemorrhage (SAH)**Together, hemorrhagic strokes make up ~8–15% of cases and are often more severe.
3. **Transient ischemic attack (TIA):** A short-lived blockage with symptoms that resolve, but a **serious warning** that a full stroke could follow.

## Blood Clots and Stroke: The Hidden Culprit

Most strokes are not random; they are caused by **blood clots** that block blood flow to the brain.

- **87% of all strokes are ischemic**, and nearly all of these are the direct result of blood clots.
- Each year in the U.S., that means about **690,000 strokes are clot-related**.
- Clots can form in brain arteries narrowed by plaque (**thrombotic stroke**) or travel from elsewhere, often the heart (**embolic stroke**).
- **Atrial fibrillation (AFib)**, an irregular heartbeat, is a leading cause of embolic strokes and accounts for about **1 in 7 ischemic strokes**.

**Key insight:** Blood clots are the silent trigger behind most strokes. Managing blood pressure, reducing inflammation, improving omega-3 status, and addressing atrial fibrillation can dramatically lower clot risk.

# AA, The Eicosanoid Switch: Why Arachidonic Acid Matters

**Arachidonic Acid (AA)** is an omega-6 fatty acid embedded in cell membranes. When released and metabolized, AA becomes **eicosanoids** such as **thromboxane A2 (TXA2)** and certain prostaglandins and leukotrienes. These molecules can:

- **Promote platelet activation and aggregation** via thromboxane A2, which is also a **vasoconstrictor**. This combination tightens arteries and helps clots form and persist.
- Drive vascular inflammation through multiple AA pathways that are implicated in **atherosclerosis** and cardiovascular disease.

Clinical and epidemiologic data link **higher AA or a lower EPA: AA ratio** with greater cardiovascular risk, including **stroke, myocardial infarction (heart attack), acute coronary syndromes, heart failure, and peripheral artery disease**. A lower EPA: AA ratio has been repeatedly associated with adverse events, and higher docosahexaenoic acid (DHA) has been linked to **less carotid plaque progression**.

**Plain speak:** Arachidonic Acid is the raw material for clot-promoting and vessel-tightening signals. If AA runs high and omega-3s run low, your blood and vessels are primed for **narrowing of arteries, blood clots, stroke, and heart attack**.

## Who Is at Risk?

Major contributors include **high blood pressure, diabetes, high cholesterol, smoking, obesity, atrial fibrillation (AFib)**, and, now increasingly recognized, **chronic inflammation and insufficient omega-3 fatty acids**.

## What to Watch For

Use **BE FAST**:

- **B**alance loss
- **E**ye or vision changes
- **F**ace drooping
- **A**rm weakness
- **S**peech difficulty
- **T**ime to call emergency services

Rapid treatment improves outcomes.

## Key U.S. Statistics at a Glance

- **Annual strokes:** >795,000
- **Ischemic share:** ~87%
- **Stroke deaths (2022):** 165,393
- **Age-adjusted death rate (2022):** 39.5 per 100,000

# Get Tested: Know Your Omega-3 Index and Arachidonic Acid

You cannot manage what you do not measure. A simple **at-home dried blood spot (DBS) test** can quantify your fatty acid status, including:

- **Omega-3 Index** (the percentage of eicosapentaenoic acid [EPA] and docosahexaenoic acid [DHA] in red blood cells), a validated cardiovascular risk marker.
- **Arachidonic Acid (AA)** level, and often the **EPA: AA ratio**, which together provide insight into your **inflammation and clotting balance**.

## Why DBS testing works:

- DBS accurately reflects fatty acid composition and can be used to estimate or calculate the Omega-3 Index from a finger-prick card, with methods validated against standard lab measures.

## How to take action now:

- **Email me:** [robert@dietfreelife.com](mailto:robert@dietfreelife.com)
- [Schedule a free consultation](#) to review your results and a personalized plan.
- Or **contact the person who shared this article** to learn more about the at-home dried blood spot test.

## References

1. American Heart Association. (2025). *2025 heart disease and stroke statistics: A report of US and global data from the American Heart Association*. *Circulation*, 151(8), e41–e660.
2. Centers for Disease Control and Prevention. (2024). *Stroke facts*. Retrieved from <https://www.cdc.gov/stroke>
3. Harris, W. S., & von Schacky, C. (2004). The Omega-3 Index, a new risk factor for death from CHD. *Preventive Medicine*, 39(1), 212–220.
4. Harris, W. S., & Polreis, J. (2016). Measurement of the Omega-3 Index in dried blood spots. *Annals of Clinical and Laboratory Research*, 4(4), 1–6.
5. Nielsen, M. S., et al. (2013). Adipose tissue arachidonic acid and myocardial infarction risk. *Atherosclerosis*, 226(2), 386–390.
6. Nelson, J. R., et al. (2019). The EPA:AA ratio and its clinical utility in CVD risk assessment. *Prostaglandins, Leukotrienes and Essential Fatty Acids*, 142, 1–9.
7. Asakura, K., et al. (2023). Low EPA/AA ratio and cardiovascular events in CAD patients. *Journal of Cardiology Cases*.
8. Steffen, B. T., et al. (2018). Plasma fatty acids and carotid plaque progression in MESA. *Atherosclerosis*, 270, 122–129.
9. Wang, B., et al. (2021). Metabolism pathways of arachidonic acid in CVD. *Signal Transduction and Targeted Therapy*, 6, 94.
10. Hanna, V. S., & Hafez, E. A. A. (2018). Synopsis of arachidonic acid metabolism. *Journal of Advanced Research*, 11, 23–32.
11. Qureshi, A. I., Mendelow, A. D., & Hanley, D. F. (2009). Intracerebral hemorrhage. *The Lancet*, 373(9675), 1632–1644.

12. Torrissen, M., et al. (2025). Global omega-3 and omega-6:3 ratios from >500,000 DBS samples. *Lipids in Health and Disease*, 24, 260.
13. Quantitation methodology for DBS fatty acids on standard cards. *Journal of Pharmaceutical and Biomedical Analysis*, 2019.

---

Robert Ferguson is a California- and Florida-based single father of two daughters, clinical nutritionist, researcher, best-selling author, speaker, podcast and television host, health advisor, NAACP Image Award Nominee, creator of the Diet Free Life methodology, and Chief Nutrition Officer for iCoura Health. He also serves on the Presidential Task Force on Obesity for the National Medical Association and the Health and Product Advisory Board for Zinzino, Inc.