

WHAT THE OMEGA-3 INDEX MEASURES

The Omega-3 Index is the percentage of EPA and DHA among all fatty acids in your red blood cell membranes. It was defined by William Harris and Clemens von Schacky in a 2004 Preventive Medicine paper as a candidate risk factor for death from coronary heart disease. Unlike a single blood draw of triglycerides, it reflects roughly 120 days of average intake, making it a stable, reproducible marker rather than a snapshot.

Target ranges established in the original research and used by clinical labs since:

- 8% or higher
Associated with the lowest cardiovascular risk in the original Harris/von Schacky cohort analyses.
- 4% to 8%
Intermediate risk range. Most adults eating a typical Western diet fall here or lower.
- Below 4%
Associated with the highest risk band identified in the founding research.

HOW TO TEST

The HS-Omega-3 Index test uses a simple fingerstick blood spot card mailed to a lab and is the same methodology validated in the original research. A standard physician-ordered omega-3 fatty acid panel works as well, though ask specifically for RBC (red blood cell) membrane composition rather than plasma levels, since plasma reflects only the past few days of intake.

Retest 3 to 4 months after starting or changing a dosing protocol — red blood cells fully turn over on roughly that timeline, so testing sooner will not reflect a stable new level.

DOSING TO RAISE YOUR INDEX

The dose required to reach a given index level varies by starting point, body composition, and genetics, but published intervention trials give a useful planning range:

- Below 4% starting index
1,500–2,000mg combined EPA+DHA daily is a reasonable starting dose to move meaningfully toward the 8% target over 3–4 months.
- 4–6% starting index
1,000mg combined EPA+DHA daily is typically sufficient to close most of the remaining gap.
- Maintenance once above 8%
500–1,000mg daily maintains levels for most people, though retesting annually is the only way to confirm your specific requirement.

The 2019 REDUCE-IT trial, published in the New England Journal of Medicine, used 4g/day of a purified EPA formulation in high-triglyceride patients and found a 25% relative reduction in major cardiovascular events — a considerably higher dose than general population targets, and specific to that patient population. The 2018 VITAL trial found more modest benefits from 1g/day in a general healthy population, underscoring that dose and target population both matter when interpreting omega-3 research.

FOOD SOURCES (APPROX. EPA+DHA PER SERVING)

- Salmon (3.5oz, wild)
About 1,000–1,800mg per serving, varying by species and season.
- Sardines (3.5oz, canned)
About 1,000–1,500mg, plus calcium from edible bones.
- Mackerel (3.5oz)
About 2,000mg — one of the highest per-serving concentrations of any whole food.
- Algae oil (supplement)
200–600mg per serving depending on product; the only direct EPA/DHA source suitable for a plant-based diet.

SUPPLEMENT QUALITY CHECKLIST

- Third-party tested
Look for IFOS (International Fish Oil Standards) or USP verification confirming label-accurate EPA/DHA content and low contaminant levels.
- Triglyceride form
Triglyceride-form fish oil has better documented absorption than the cheaper ethyl ester form used in many mass-market brands.
- Low TOTOX score
A lower Total Oxidation value indicates a fresher, less rancid oil — check the certificate of analysis if the brand publishes one.