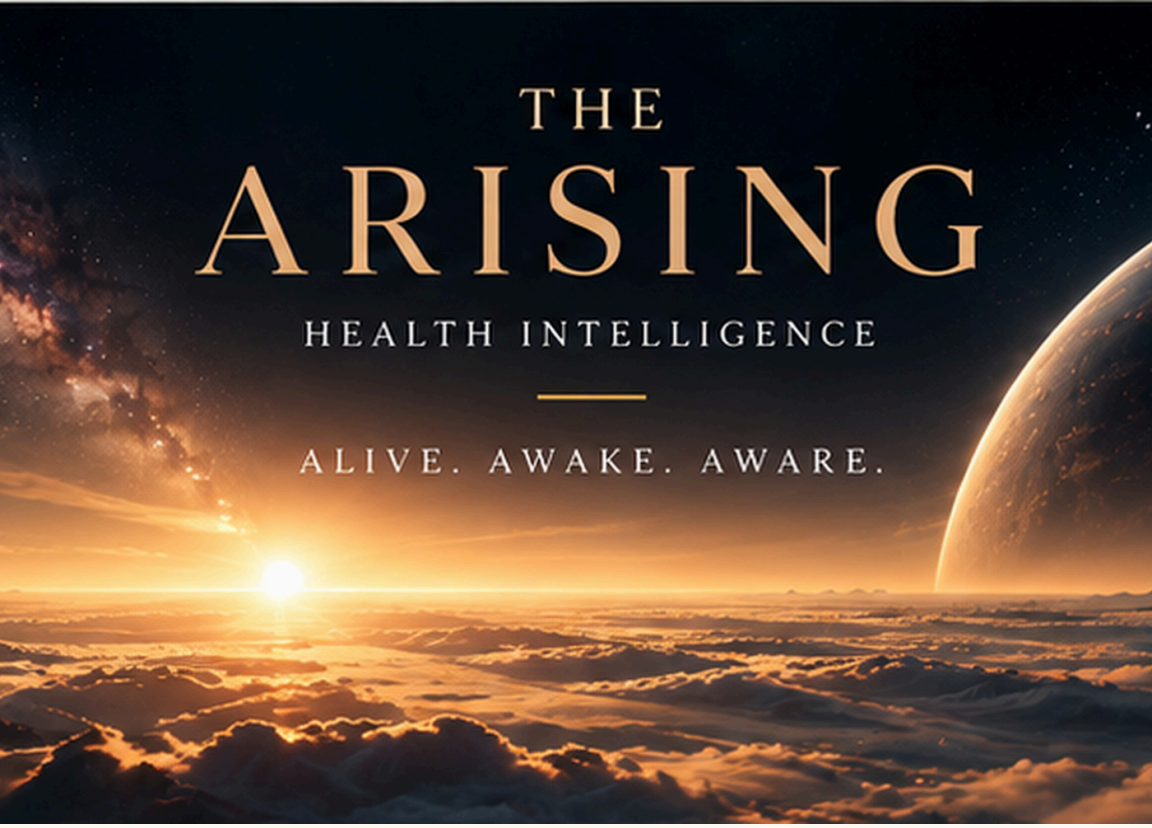


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The Study That Would Change My Mind

How to follow a longevity claim from an appealing headline to an answerable clinical question.

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Start with the decision

A study becomes easier to read when the question is precise. Who might use the intervention? For what purpose? Compared with what alternative? What outcome would make the benefit worth its burden?

Without that frame, an impressive number can drift between meanings. An association becomes a cause, a biomarker becomes a health outcome, or an animal experiment becomes a recommendation.

Follow the outcome actually tested

The LIFE trial measured mobility disability, an outcome close to daily function. [1] The DHA trial in this series demonstrated biochemical target engagement without improvement in the measured cognitive or brain-structure outcomes over its follow-up. [2] These are different answers to different questions.

An intervention may succeed biologically and remain clinically uncertain. That is useful information. It helps identify which link in the chain has been tested and which has not.

Look at the comparison and the missing people

Randomization helps make treatment groups comparable, but it does not guarantee a good study by itself. Blinding, adherence, missing outcomes, prespecified analyses, and adequate follow-up still matter.

In an observational study, adjustment addresses measured differences under assumptions; it cannot make every unmeasured difference disappear. A systematic review is also

only as informative as its included evidence and methods. Its title does not supply quality automatically.

Read the size of the result

A relative reduction and an absolute reduction answer different questions. A hazard ratio is not a number of years added to life. A change within a group is not necessarily the effect compared with a control group. Confidence intervals help show the range compatible with the data.

Measurement papers also belong in the evidence chain. If a biological-age measure is unreliable for the intended comparison, a favorable shift can be difficult to interpret. [3]

The future trial

Healthspan and regulatory-science discussions should specify endpoints, duration, harms, and the population rather than treat “aging” as one self-explanatory outcome. A registry shows what was planned; it does not certify a favorable result.

The question worth asking is what finding would genuinely change the next decision. Naming it in advance makes both optimism and skepticism more useful. Science becomes trustworthy through methods that allow our preferred explanation to be corrected.

SOURCES & READING SCOPE

Keep the claim beside its evidence

1. Marco Pahor, Jack M Guralnik, Walter T Ambrosius, et al. Effect of structured physical activity on prevention of major mobility disability in older adults: the LIFE study randomized clinical trial. JAMA. 2014 Jun 18;311(23):2387-96. doi:10.1001/jama.2014.5616. PMID:24866862. Open source →

2. Hussein N Yassine, Sara Ghasem Pour, Marlene Juarez, et al. CNS target engagement of high-dose DHA supplementation in older adults at risk for dementia: a randomised, double-blind, placebo-controlled trial. EBioMedicine. 2026 Jul;129:106316. doi:10.1016/j.ebiom.2026.106316. PMID:42315445. Open source →

3. Daniel S Borrus, Raghav Sehgal, Jenel Fraij Armstrong, et al. When to Trust Epigenetic Clocks: Avoiding False Positives in Aging Interventions. Aging cell. 2026 Oct;25(10):e70756. doi:10.1111/acel.70756. PMID:42850743. Open source →

Selected primary publication records and abstracts checked 25–26 October 2026. This is a focused reading companion, not a systematic review, a treatment protocol, or a complete appraisal of methods, supplements and later evidence.

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