The following is an excerpt from How Not to Die, which was released by Flatiron Books.

Thanks in part to the American Heart Association’s recommendation that individuals at high risk for heart disease should ask their physicians about omega-3 fish oil supplementation, fish oil pills have grown into a multibillion dollar industry. We now consume more than one hundred thousand tons of fish oil every year.

But what does the science say? Are the purported benefits of fish oil supplementation for the prevention and treatment of heart disease just a fish tale? A systematic review and meta-analysis published in the Journal of the American Medical Association looked at all the best randomized clinical trials evaluating the effects of omega-3 fats on life span, cardiac death, sudden death, heart attack, and stroke. These included studies not only on fish oil supplements but also studies on the effects of advising people to eat more oily fish. What did they find? Overall, the researchers found no protective benefit for overall mortality, heart disease mortality, sudden cardiac death, heart attack, or stroke.

What about for someone who had already had a heart attack and is trying to prevent another? Still no benefit was found.

Where did we even get this idea that the omega-3 fats in fish and fish oil supplements are good for you? There was a notion that Eskimos were protected from heart disease, but that appears to be a complete myth. Some early studies, however, looked promising. For example, the famous DART trial from the 1980s involving two thousand men found that those advised to eat fatty fish had a 29 percent reduction in mortality. That’s impressive, so it’s no wonder the study got a lot of attention. But people seem to have forgotten about the sequel, the DART-2 trial, which found the exact opposite. Run by the same group of researchers, the DART-2 trial was an even bigger study—three thousand men—but this time, participants advised to eat oily fish and particularly those who were supplied with fish oil capsules had a higher risk of cardiac death.

After putting all the studies together, researchers concluded that there was no longer justification for the use of omega-3s in everyday clinical practice. What should doctors do when their patients follow the American Heart Association’s advice and inquire about fish oil supplements? As the director of Lipids and Metabolism at Mount Sinai’s cardiovascular institute put it: “Given this and other negative meta-analyses, our job [as doctors] should be to stop highly marketed fish oil supplementation to all our patients . . .”