Testosterone therapy aims to help aging men recapture their vitality, decrease body fat and enhance libido. But hormone treatments – while medically necessary for some men – aren’t meant to be a fountain of youth, and experts believe more research is needed to determine if such therapy could boost heart disease risks.

Testosterone levels naturally decline in most men as they age. This decline is generally mild, and symptoms often are nonspecific, such as low energy, reduced muscle mass and reduced sexual desire. Roughly 20% of men over the age of 60 have experienced a drop in testosterone levels, though this gradual decline can begin as early as the mid-30s.

“Testosterone therapy is used appropriately in men with organic hypogonadism, then there is no counter-argument,” said Dr. Shehzad Basaria, associate director of Men’s Health: Aging and Metabolism at Brigham and Women’s Hospital in Boston. The condition causes specific symptoms such as decreased sexual desire, breast enlargement, testicular atrophy and hot flashes.

But “in middle-aged and aging men who have a slightly lower testosterone level and nonspecific symptoms due to aging or obesity, testosterone therapy is not indicated. Similarly, testosterone is not a rejuvenation drug,” said Basaria, an associate professor of medicine at Harvard Medical School. “The majority of patients seen in our clinics have symptoms such as fatigue, weight gain, muscle loss or feeling sad. These symptoms are common and nonspecific, and testosterone therapy is generally not indicated in such clinical scenarios.”

Over the past two decades, intense direct-to-consumer marketing of hormone therapy for aging men, much of it via television ads, has more than doubled its off-label use. It’s a tad experts warn is medically unwarranted and potentially harmful.

The American College of Physicians, which issued new guidelines in January, recommends against prescribing testosterone therapy to boost energy, vitality or physical function, but supports its use for men experiencing sexual dysfunctions.

The FDA recommends calling for potential benefits and risks with the patient and discontinuing treatment if there is no improvement.

“I think one of the biggest concerns about testosterone therapy is whether it is really needed,” said Dr. Robert Eckel, professor of medicine and an endocrinologist at the University of Colorado School of Medicine in Aurora, Colorado. “Erectile dysfunction is a common problem as men age, but there can be other reasons for this, such as vascular disease or nerve damage, which is more common in patients with diabetes. It is not necessarily an indication for use with treatment with testosterone therapy. The patient must be properly evaluated.”

The FDA warns against prescribing testosterone therapy for age-related hormonal decreases or anything other than a medical diagnosis of hypogonadism. Since 2015, it has required testosterone product labels to warn of a possible increased risk of heart attacks and strokes.

But research about that association so far is unclear, Basaria said.

“Some studies have reported higher cardiovascular risk with testosterone use, but there are an equal number of studies showing that it does not increase cardiac risk,” he said. “This discrepancy exists because no study published to date has been powered to assess cardiovascular events as the primary outcome.”