

Plant-Based Diets Support Healthy Testosterone Levels

Men who follow plant-based diets have testosterone levels that are basically the same as the levels in men who eat meat, a study shows. This finding dispels a widespread notion that men need large amounts of animal protein in order to support healthy levels of this hormone.

“We found that a plant-based diet was associated with normal testosterone levels, levels that are the same as occur in men who eat a traditional diet that includes more meat,” says [Ranjith Ramasamy, M.D.](#), an associate professor and Director of Reproductive Urology at the University of Miami Health System. He co-authored the study, which appeared in the *World Journal of Urology*, with Manish Kuchakulla, a medical student, also at the University of Miami Miller School of Medicine.*

“The old idea that men needed to consume a traditional diet with plenty of meat to have a healthy testosterone level was based on pure conjecture, not based on evidence,” says Dr. Ramasamy.

People are interested in plant-based diets

Recent years have seen a dramatic uptick in public interest in various forms of plant-based diets, as measured in many ways, including trends for the terms “vegan,” “vegetarian,” and “plant-based” in Google searches. “The number of U.S. consumers who say that they adhere to a plant-based diet increased by 500% between 2014 and 2017, and sales of plant-based foods rose 20% in 2018 compared to the year prior,” the authors wrote.

Meanwhile, previous studies on the effects of different types of diets on testosterone

levels have been inconsistent. Some research has shown plant-based diets to be associated with lower levels of testosterone, while others have shown that PBDs do not affect testosterone levels.

Distinguishing between high- and low-quality PBDs

The researchers extracted data from the [National Health and Nutrition Examination Survey](#) (NHANES). NHANES is a yearly survey that includes demographic, income, dietary, and health-related questions. NHANES researchers also conduct medical exams and run laboratory tests on the people surveyed.

The researchers used NHANES data about 191 men between the ages of 18 and 75, which had been gathered in 2003-2004, because that data set was the only available one that included both testosterone levels, as measured in blood samples, and details of each person's diet.

Unlike most previous studies that treat all plant-based diets as equal, the researchers distinguished between healthier and less-healthy plant-based diets. "You can eat a lot of soda, chips, and juice, which are plant foods but aren't healthy foods," explains Manish Kuchakalla.

To see if men with healthier and less-healthy plant-based diets had different testosterone levels, the researchers divided the men who ate mostly plant-based foods into two groups - those who scored high on an index for healthy plant-based food consumption and those who merely scored high on an index for plant-based food consumption.

The researchers considered testosterone levels below 300 nanograms per deciliter to indicate a deficiency, in keeping with the American Urological Association. Their analyses showed that the kind of diet a man followed did not affect testosterone

levels.

“Whether a man ate a traditional diet with lots of animal foods, a healthy plant-based diet, or a less healthy plant-based diet simply did not matter. We found no differences,” says Manish Kuchakulla.

Plant-based diets are good for humans and the environment

The researchers emphasized that, in addition to supporting healthy testosterone levels, plant-based diets confer many health advantages to individuals, populations, and the planet.

Plant-based diets have proven to reduce the risks of many conditions, including hypertension, heart disease, heart attacks, strokes, and many cancers.

“Plant-based diets also reduce a person’s carbon footprint, so they can help us address global warming,” says Manish Kuchakulla. “Studies have shown that a shift to a more sustainable eating pattern with a reduction in animal-based foods can result in more than a 70% reduction in greenhouse gas emissions,” the research team wrote.

*Dr. Ruben Blachman-Braun and Sirpi Nackeeran, a medical student, who are also with the University of Miami, were the study’s other co-authors.

Milly Dawson is a contributor to UMiami Health News.

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