Miller School Urologists Study How Plant-based Diets Impact Men’s Health

Three new studies by University of Miami Miller School of Medicine urologists address how consuming healthy plant-based diets impact a range of men’s health issues — from diabetes to sexual health.

Plant-based diets is a hot topic in men’s health but one that many men dismiss for fear that eating less meat might negatively impact testosterone levels and sexual health.

Mark Gonzalgo, M.D., Ph.D.

“Patients often ask about what they can do to keep prostate-specific antigen (PSA) levels low or prevent prostate cancer,” said Mark L. Gonzalgo, M.D., Ph.D., professor and vice chair
of Urology at the Miller School.

Healthy plant-based diets are among the lifestyle changes that men are hearing and learning about for overall health. Consuming a healthy plant-based diet does not necessarily mean eliminating meat, rather it focuses on eating more whole grains, fruits, vegetables, nuts and legumes and less animal protein, according to Dr. Gonzalgo.

Yet there remain misconceptions among men about plant-based diets, according to Ranjith Ramasamy, M.D., associate professor and director of the Miller School’s Reproductive Urology Program.

“Traditionally, men have thought that lots of protein, specifically animal protein, was necessary to maintain testosterone levels and indirectly related to maintaining erectile function,” Dr. Ramasamy said.

Miller School investigators conducted three studies, including two abstracts presented at the September 2021 American Urology Association annual meeting, suggesting plant-based diets may improve serum testosterone and erectile function.

**Plant-based eating and PSA**

Urology resident Ali Mouzannar, M.D., presented and was among the authors of “Impact of Plant-Based Diet on PSA Level: Data from the National Health and Nutrition Examination Survey (NHANES),” a study looking at the dietary habits of nearly 1,400 men with documented PSA levels in the NHANES database.

“PSA is a sensitive marker to prostate cancer. Patients with an elevated PSA require further evaluation with prostate
biopsy to rule out cancer,” Dr. Mouzannar said. Studying the impact of a plant-based diet on PSA levels is reasonable given what already is known about diets high in animal protein.

“Studies have shown that more aggressive prostate cancer can be associated with high meat intake. In addition, there is growing evidence that animal-based food has been associated with greenhouse emissions, and all-cause mortality risk. “Dr. Mouzannar said. “Several other publications suggest that fruits and vegetables may have protective effect against prostate cancer.”

Dr. Mouzannar and colleagues looked at men’s diets and PSA levels and found men consuming more fruits, vegetables and other healthy plant-based foods and less meat had lower PSA levels than men who consumed more meat or less healthy diets, including fruit juices, refined grains, potatoes, sugars, artificially sweetened beverages, and desserts.

More studies need to be conducted to determine if diet causes lower PSA levels, but in the meantime urologists and other can refer to the findings to answer patients’ questions.
“The important take-home message from this study is that it appears that adopting a plant-based diet may be associated with lower PSA levels and can certainly be incorporated into ways that patients can live healthier lifestyles,” said Dr. Gonzalgo, who also is a study author.

Other Miller School authors on the study are urology resident Manish Kuchakulla, M.D.; urology resident Ruben Blachman Braun, M.D., M.Sc.; medical student Sirpi Nackeeran; urology resident Maria Becerra, M.D.; Assistant Professor Bruno Nahar, M.D.; Associate Professor of Urology Oncology Sanoj Punnen, M.D.; Associate Professor of Urology Oncology Chad Ritch, M.D., M.B.A.; and Professor and Chair of Urology Dipen Parekh, M.D.

No ED, testosterone links

Contrary to the belief that eating more animal protein improves erectile function and testosterone levels in men, Miller School investigators found no impact on testosterone levels from a healthy plant-based diet and a positive impact from eating more plant-based foods and animal protein on erectile function, according to Miller School urology resident Ruben Blachman-Braun, M.D., M.Sc., who presented and authored “Plant-based diets are associated with decreased risk of erectile dysfunction.”

Dr. Blachman-Braun and colleagues studied nearly 2,550 men in the NHANES database.

“Of those, there were 1,085 with some degree of erectile dysfunction and after performing an analysis we showed that increased plant-based diet consumption is associated with
decreased risk of erectile dysfunction,” Dr. Blachman-Braun said. “This does not mean that eating a plant-based diet improves erections. However, it shows that eating a plant-based diet does not negatively affect erections and having a healthier lifestyle with increased dietary plant-based consumption can potentially lead to having better erections.”

Other authors on this study are medical student Eliyahu Kresch; medical student Sirpi Nackeeran; Manish Kuchakulla and Dr. Ramasamy.

In yet another study published earlier this year in the World Journal of Urology, Dr. Ramasamy and coauthors analyzed health and diet information from 191 participants of the NHANES database. Plant-based diet index, or the amount of plant-based foods in men’s diets, did not predict and had no impact on serum testosterone levels.

Coauthors on this study were Manish Kuchakulla, Sirpi Nackeeran and Ruben Blachman-Braun.

The two studies presented at AUA were featured in its press release, putting a spotlight on the topic’s relevance, according to Dr. Ramasamy.

“We are on the cusp of figuring out how healthy living with decreased animal protein and more of a plant-based diet with more vegetables and fruits is not just better for your heart but also good for men’s health conditions, including sex life and testosterone levels,” Dr. Ramasamy said.

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