Published in final edited form as:

J Urol. 2020 February ; 203(2): 403–404. doi:10.1097/01.JU.0000611460.62826.3d.

Editorial Comment on: “The Association Between Popular Diets and Serum Testosterone Among Men in the United States”

David K. Twitchell¹, Alexander W. Pastuszak, MD, PhD²

¹School of Medicine, University of Utah, Salt Lake City, UT, USA

²Division of Urology, Department of Surgery, University of Utah School of Medicine, Salt Lake City, UT, USA.

An estimated 45 million Americans trialed a new diet program in 2018.¹ While restrictive diets frequently yield many positive health outcomes, they can also propagate adverse effects. Fantus *et al.* analyzed the correlation between diet and serum testosterone (T) levels in a heterogeneous, population-based study of 3,128 men using data from the National Health and Nutrition Examination Survey (NHANES) database. The authors report a modest, yet statistically significant, decrease in serum T levels in men following low-fat diets as compared with non-restrictive diets with a mean difference of ~30 ng/dL. The authors propose that low-fat diets decrease serum T levels by providing insufficient nutrients for precursors of steroidogenesis.

Although statistically significant, the clinical significance of the measured decrease in T levels secondary to a low-fat diet remains controversial, particularly in obese males. Pellitero *et al.*² reported an increase in total T levels of ~300 ng/dL in 33 men following bariatric surgery, supporting the conclusion that significant weight loss in obese males is more beneficial in improving serum testosterone levels overall than a smaller, counteracting decrease in T levels that may result from a low-fat diet. However, in non-obese, otherwise healthy men with hypogonadism, increasing dietary fat consumption may prevent a decline in T levels and may function as an adjunct in a multi-faceted approach of maintaining or increasing serum T levels in this population, which includes a healthy diet and exercise.

References

- [1]. Boston Medical. Weight Management. 2019 <https://www.bmc.org/nutrition-and-weight-management/weight-management> Accessed 4 August, 2019.
- [2]. Pellitero S, Olaizola I, Alastrue A, et al. Hypogonadotropic hypogonadism in morbidly obese males is reversed after bariatric surgery. *Obesity surgery*. 2012;22: 1835–42. [PubMed: 22923309]

Corresponding Author: Alexander W. Pastuszak, MD, PhD, Assistant Professor of Surgery (Urology), Division of Urology, Department of Surgery, University of Utah School of Medicine, 30 N 1900 E, Rm # 3B420, Salt Lake City, UT 84132, Phone: 801-213-2700, Fax 801-585-2891, alexander.pastuszak@hsc.utah.edu.