

# Defense Health Agency (DHA) Clinical Communities Speaker Series

## **Resource List-August 2019**

#### Innovations in Health Care from Select Centers of Excellence and Communities of Practice Groups

#### Biohacking Your Best: Optimizing Human Performance with Lifestyle/Performance Medicine

Fruit, vegetables, and certain components of plant foods, such as fiber, have long been thought to protect against cancer. The European Prospective Investigation into Cancer and Nutrition (EPIC) is a prospective cohort that includes >500,000 participants from 10 European countries and has made a substantial contribution to knowledge in this research area. The article, Fruit, Vegetable, and Fiber Intake in Relation to Cancer Risk: Findings from the European Prospective Investigation into Cancer and Nutrition (EPIC) summarizes the findings published thus far from the EPIC study on the associations between fruit, vegetable, or fiber consumption and the risk of cancer at 14 different sites.

A number of factors contribute to success in sport, and diet is a key component. An athlete's dietary requirements depend on several aspects, including the sport, the athlete's goals, the environment, and practical issues. The importance of individualized dietary advice has been increasingly recognized, including day-to-day dietary advice and specific advice before, during, and after training and/or competition. Athletes use a range of dietary strategies to improve performance, with maximizing glycogen stores a key strategy for many. Carbohydrate intake during exercise maintains high levels of carbohydrate oxidation, prevents hypoglycemia, and has a positive effect on the central nervous system. The article Role of Nutrition in Performance Enhancement and Postexercise Recovery why dietary recommendations should be individualized for each athlete and their sport and provided by an appropriately qualified professional to ensure optimal performance

The prevalence of type 2 diabetes is rising worldwide, especially in older adults. Diet and lifestyle, particularly plant-based diets, are effective tools for type 2 diabetes prevention and management. Plant-based diets are eating patterns that emphasize legumes, whole grains, vegetables, fruits, nuts, and seeds and discourage most or all animal products. The article, A Plant-based Diet for the Prevention and Treatment of Type 2 Diabetes, strongly supports the role of plant-based diets, and food and nutrient components of plant-based diets, in reducing the risk of type 2 diabetes. Evidence from observational and interventional studies demonstrates the benefits of plant-based diets in treating type 2 diabetes and reducing key diabetes-related macrovascular and microvascular complications.

The purpose of the article Consumers' Perceived Barriers to Following a Plant-based Diet is to analyze the barriers perceived by consumers to lowering their meat consumption levels and adopting a plant-based diet, which means a diet that includes mainly non-meat foods, yet it can contain both vegetarian and meat meals.

The objective of the study Exploring Dietary Guidelines Based on Ecological and Nutritional Values: A Comparison of Six Dietary Patterns was to explore the synergies between nutritionally healthy and ecologically sustainable diets. The aim was to explore the possibilities for future integrated dietary guidelines that support consumers to make informed dietary choices based on both ecological and nutritional values. A score system for health and sustainability was developed. Subsequently, six different diets were tested: current average Dutch, official 'recommended' Dutch, semi-vegetarian, vegetarian, vegan and Mediterranean.



## Defense Health Agency (DHA) Clinical Communities Speaker Series

#### References

- Beck, K. L., Thomson, J. S., Swift, R. J., & Von Hurst, P. R. (2015, August 11). Role of nutrition in performance enhancement and postexercise recovery. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4540168/
- Bradbury, E, K., Appleby, N, P., & J, T. (2014, June 11). Fruit, vegetable, and fiber intake in relation to cancer risk: Findings from the European Prospective Investigation into Cancer and Nutrition (EPIC). Retrieved from https://academic.oup.com/ajcn/article/100/suppl\_1/394S/4576521
- Dooren, C., Marinussen, M., Blonk, H., Aiking, H., & Vellinga, P. (2013, December 01). Exploring dietary guidelines based on ecological and nutritional values: A comparison of six dietary patterns.
  Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0306919213001620
- McMacken, M., & Shah, S. (2017, May). A plant-based diet for the prevention and treatment of type 2 diabetes. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5466941/
- Pohjolainen, P., Jokinen, P., & Vinnari, M. (2015, March 02). Consumers' perceived barriers to following a plant-based diet. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/BFJ-09-2013-0252/full/html