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Education

PhD, Nutrition and Food Science, University of Maryland, College Park

Key Interests

Dietary Intake Assessment | Food Composition Analysis | Migraine | Food Science |
Functional Foods | Nutraceuticals | Dietary Interventions | Microbiome

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SELECT PUBLICATIONS

- › Slavin, M. *et al.* (2021). Dietary magnesium and migraine in adults: A cross-sectional analysis of the national health and nutrition examination survey 2001–2004. *Headache*, 61(2), 276-286.
- › Slavin, M. *et al.* (2019). What is needed for evidence-based dietary recommendations for migraine: A call to action for nutrition and microbiome research. *Headache*, 59(9), 1566-1581.
- › Slavin, M. *et al.* (2016). Impact of food components on in vitro calcitonin gene-related peptide secretion—A potential mechanism for dietary influence on migraine. *Nutrients*, 8(7), 406.

Research Focus

I am a food scientist and Registered Dietitian, and my research broadly investigates the impact of food on human health. Early in my research, I specialized in the laboratory techniques that measure nutrients in foods, ranging from the predominant carbohydrates, fats, and proteins, the vitamins and minerals, and down to components found in tiny amounts like the phytochemicals. More recently, my work has transitioned away from the benchtop to incorporate my clinical nutrition training in the conduct of human subjects research, including the assessment of dietary intake in relation to diseases or environment.

My primary research interest is to explore the relationship between the diet and migraine disease, including both the short term (food triggers) and long-term (overall dietary pattern) impacts of food on disease outcomes. I have utilized techniques ranging from bench science, epidemiological secondary data analyses, and clinical assessments, and I've recently secured funding to begin neuroimaging with fMRI. The long-term goal of this research is to build evidence for dietary recommendations for mitigating migraine symptoms and progression.

Current Projects

- Metabolomic evaluation of gut microbial polyphenol degradation in premenopausal women
- Investigation of food triggers of migraine using functional magnetic resonance imaging (fMRI)
- Influence of dietary choline intake on sensory processing symptoms in children with autism spectrum disorder (ASD)
- Dietary intake of riboflavin and magnesium in relation to migraine disease using National Health and Nutrition Examination Survey (NHANES) data