THE HEALTH IMPLICATIONS OF PERIODIC DIETARY RESTRICTIONS ON ANIMAL PRODUCTS AMONG ORTHODOX CHRISTIANS IN THE UNITED STATES [1]


Adviser: Kathleen O’Connor [2]

Despite increasing recognition that dietary factors are major contributors to cardiovascular and metabolic (cardiometabolic) related disability and mortality in the United States and worldwide, the optimal diet for reducing the burden of these nutrition-related conditions has yet to be clearly identified. While anthropological and demographic data on pre-industrialized populations suggest that humans are well-adapted omnivores, some epidemiological data from industrialized populations suggest a potential health and longevity benefit associated with the omission of animal products. Nonetheless, plant-based diets, broadly defined, do not always provide an observable health advantage over equally broadly-defined omnivorous diets, and there is reason to believe that any health effects of omitting animal products from the diet may depend on whether they are replaced with “healthy” plant-sourced foods (e.g., whole grains, legumes, nuts, seeds, fruits, and vegetables) or “unhealthy” plant-sourced foods (e.g., refined grains and added sugars). However, few studies have tested the degree to which different choices of plant-based replacement foods may modify any potential health benefits of reduced consumption of animal products. This study aimed to address this gap by examining if any observable changes in cardiometabolic health biomarkers that result from a temporary, religious fast from meat, dairy, and egg (MDE) products are more pronounced when accompanied by increases in “healthy” plant-sourced foods but less pronounced when accompanied by increases in “unhealthy” plant-sourced foods. To do this, the Lenten Season Study followed a sample of 95 self-identified Orthodox Christians (OCs) and four non-OCs from the United States before and during the OC period of “Lent,” the 48 days prior to Easter during which many OCs fast from MDE products as part of a spiritual discipline. Food frequency questionnaires (FFQs) and 7-day undocumented food records (FRs) were used to measure dietary changes and accompanying shifts in nutritional composition. This study then investigated A) whether MDE restriction was associated with shifts in measures of body fat, blood lipids, glucose metabolism, and inflammation, and B) whether the degree of change in those health measures was dependent on concurrent reductions in calories or shifts in intake of different “healthy” or “unhealthy” non-MDE foods. Among the study sample, both FFQ and FR data provided evidence that consumption of legumes, soy products/meat alternatives, nuts and seeds, and discretionary oils increased in relation to MDE restrictions. There was no strong evidence, however, that average consumption of other “healthy” plant-based foods, such as fruits and vegetables, increased during the Lenten MDE fast; in fact, among a substantial portion of the study sample, fruit and vegetable consumption remained below the levels recommended by national guidelines. Consumption of less healthy refined grains and added sugars were unchanged, on average, during the MDE fast but also remained above recommended thresholds in a large segment of the study sample. MDE restriction was associated with significant reductions in total and LDL cholesterol but not with changes in other blood lipids, glucose, insulin, or C-reactive protein. There was no evidence that relationships between MDE restrictions and cardiometabolic health biomarkers were modified by concurrent changes in calories or intake of different “healthy” and “unhealthy” non-MDE foods. This study suggests that the temporary MDE fasts of OCs in the United States may result in some short-term improvements in diet and health markers, though the clinical relevance and long-term effects of this practice remain unknown. The consistently high consumption of refined grains and added sugars and consistently low consumption of fruits and vegetables during the OC Lenten MDE fast exemplify the ways in which animal product restriction or omission may not uniformly lead to an optimal, health-promoting diet. This study also
demonstrates some of the ways in which cross-disciplinary frameworks are valuable for moving beyond overly simplified and incomplete perspectives on diet and health toward theoretical and statistical models that account for more of the interactive relationships among biological, dietary, and lifestyle components that shape diet-disease relationships across different life history stages and ecological contexts.

People Involved:  Hilary Bethancourt [3]
Status of Research or Work: Completed/published

Department of Anthropology · University of Washington · 314 Denny Hall, Box 353100· Seattle, WA 98195-3100
Telephone: (206) 543-5240 · Email: anthinfo@uw.edu

Copyright © 2016-2020 University of Washington · Privacy · Terms · Site Map · Contact Us
About the banner image

Source URL: https://anthropology.washington.edu/research/graduate/health-implications-periodic-dietary-restrictions-animal-products-among-orthodox

Links