

Findings from the Women’s Health Initiative Randomized Controlled Dietary Modification Trial and the Women’s Health Study challenge the prescription of the low-fat high- carbohydrate “heart-healthy” Prudent diet, at least in postmenopausal women with insulin resistance.

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The Diet-Heart hypothesis is a core teaching in modern cardiology and nutrition/dietetics. The original hypothesis developed by Dr John Gofman in the 1950s proposed that diets high in either saturated fat **or** in carbohydrate predispose to coronary heart disease (CHD) by raising either LDL-cholesterol or VLDL-cholesterol (triglycerides) respectively. From a comparison of 6 countries showing a relationship between total dietary fat consumption and CHD mortality, in 1953, Ancel Key PhD concluded that the diet-heart relationship was valid only for dietary fat, thereby exonerating carbohydrates from any possible role in CHD causation. Keys’ interpretation of the Diet-Heart hypothesis immediately became mainstream and has been so ever since. The important consequence has been a single- minded focus on prescribing low-fat diets and cholesterol-lowering medications for the prevention and treatment of CHD.

But, except in rare cases, epidemiological studies cannot identify causes; RCTs can only identify possible “reasons” from which hypotheses can be developed. These can then be tested by experimental interventions, in particular, randomized controlled trials (RCTs).

There have been a number of the RCTs of the diet-heart hypothesis but none has produced a definitive answer. The most famous of these RCTs is the \$700 million Women’s Health Initiative Randomized Controlled Dietary Modification Trial (WHIRCDMT)

During my debate with one of the principal investigators of the WHIRCDMT in the 2012 University of Cape Town Faculty of Health Science Centenary Debate, I pointed out that the WHIRCDMT had produced one inconvenient finding that has effectively been hidden: Postmenopausal women who entered the trial with a diagnosis of CHD were at a 26% increased risk of developing further CHD-related events in the first 8 years of follow-up if they were randomized to the low-fat “heart-healthy” diet compared to matched post- menopausal women who continued to eat the control, high-fat “heart-unhealthy” diet.

In this talk I will present myanalysis (1) of the most recent publications from a further 5-year follow-up of the WHIRCDMT population. These data show that the health of women with CHD at the start of the trial worsened still further if they continued to eat the low-fat

“heart-healthy” diet for another 5 years.

1. Noakes TD. Findings from the Women’s Health Initiative Randomized Controlled Dietary Modification Trial and the Women’s Health Study challenge the prescription of the low-fat high-carbohydrate “heart-healthy” Prudent diet, at least in postmenopausal women with insulin resistance. Open Heart 2021 <http://dx.doi.org/10.1136/openhrt-2021-001680>