Learn how inflammation fuels the development and progression of cardiovascular disease and evidence-based strategies to prevent and manage these conditions through nutritional interventions.

Participants completing this program should be able to:
1. Identify the role of cortisol, estrogen and thyroid hormones in the development of coronary artery disease.
2. Describe the role of inflammation, lipids including fish oil, and cholesterol.
3. List several beneficial nutrients for the heart including vitamins, minerals, antioxidants and alcohol.
4. Discuss beneficial and harmful effects of different carbohydrates and the adverse effects of sucrose and high fructose corn syrup.
5. Identify spices that can protect the heart and treat conditions associated with cardiovascular disease.
6. Describe features of diets that are identified with a reduced risk of cardiovascular disease.
Key Symptoms Hormones

- Chest Discomfort: how cardiac symptoms differ in men and women; why women are more frequently misdiagnosed, less aggressively treated, and more likely to die of cardiovascular disease.
- Cortisol: inflammation and stress-related cardiac and non-ischemic symptoms; foods that affect cortisol, e.g., curcumin and quercetin.
- Estrogen: postmenopausal ERT, weight gain, heart disease and stroke; soy-based isolavones (genistein) and coronary artery health.
- Thyroid: hypo- and hyperthyroidism—how each affects the heart; foods that modify thyroid activity.

Inflammation, Lab Tests, Fats, Fish Oil and Cholesterol

- Dietary Inflammation Index: pro- and anti-inflammatory lipids, vitamins, minerals, polyphenols and spices.
- Lab Tests: HDL/total cholesterol, triglyceride/HDL ratio, fasting insulin, fasting glucose, iron, vitamin D, CRP and homocysteine.
- Types of Fats: monounsaturated oils (e.g., canola, olive, peanut), polyunsaturated (e.g., nuts, seeds, leafy greens, fish); saturated (animal and plant-based oils) the omega family and trans-fats.
- The Case Against Fish Oil Supplements: no reduction in risk of MI, AF, or congestive heart failure; greater risk of hemorrhagic stroke; heart-healthy fish.
- Why We Need Cellulose: key role for cell membrane, steroid hormones such as cortisol, vitamin D, progestins, estradiol and testosterone; myths about HDL and LDL.
- Statin Controversies: number of patients needed to treat a patient to prevent a first or second MI, or to produce muscle weakness, pain or rhabdomyolysis, type 2 diabetes, cataract, and cognitive impairment.

Vitamins, Minerals, Antioxidants, and Alcohol

- Vitamins: low levels of Vitamin D3 are associated with greater risk of coronary artery disease; physicians taking a multivitamin supplement of beta carotene and Vitamins E, C, folic acid and B vitamins did not have fewer cardiac events.
- Minerals: calcium supplementation and elevated coronary artery calcium; Vitamin C supplementation and excess iron; anti- inflammatory and anti-estrogenic effects of estrogen.
- CoQ10 and Selenium: does supplementation reduce the risk of an MI or congestive heart failure.
- Alcohol: risk of CAD is reduced by about 20% by moderate drinking in men and women; however, even modest drinking can elevate risk of breast cancer; resveratrol, red wine and the French paradox.
- Drugs That Produce Nutrient Deficiencies: vitamins, minerals and CoQ10 deficiencies associated with selected anti-hypertensives, statins, beta-blockers, and anti-diabetic drugs.

Cardioprotective Fiber and Cardiotoxic Sugars
- Understanding Carbohydrates: benefits of complex carbohydrates.
- Protective Fibers: insoluble cellulosic, hemicellulose and lignin; protective vegetables, fruits, grains and soluble gums (e.g., oat bran) are at risk for CAD (e.g., apples); how they suppress appetite.
- Sucrose and High Fructose Corn Syrup: high fructose corn syrup is rapidly metabolized into cardiotoxic triglycerides; role in type 2 diabetes, MI and Alzheimer’s disease.

Spices
- Hypertension: benefits of Black Cumin, Blueberries, Cardamom, Cinnamon, Cocoa, Coconut, Curcumin, Fennel, Garlic, Juniper Berry, Onion, Oregano, Pomegranate, Saffron, Sesame and Tomato; adverse effects of yohimbine, Asian ginseng and Licorice.
- Platelet Aggregation: Cardamom, Chili, Garlic, Rosemary, Tomato, and Thyme and Pomegranate.
- Type 2 Diabetes: Almond, Basil, Chili, Cinnamon, Cocoa, Coriander, Curcumin, Curry, Fenugreek Seed, Garlic, Green Tea, Olive Oil, Pomegranate, Sesame and Walnut.
- Coronary Artery Disease: Almond, Cumin Seed, Cardamom, Chili, Cinnamon, Cocoa, Fennel Seed, Garlic, Marjoram, Onion, Oregano, Rosemary, Sage, Sesame Seed, and Tomato.

Dietary Considerations
- Polyphenols: pigment color and the heart, e.g., green tea, purple grapes yellow apples, blueberries, and orange carrots.
- Nuts and Seeds: heart-healthy and unhealthy choices.
- Mediterranean Diet: 50% lower rate of MI in seniors; key cardioprotective elements (veggies, nuts, legumes, fish, olive oil, and wine).
- Okinawan Diet: exceptional longevity and cardioprotective elements of this low-calorie, antioxi-rich, low glycemic diet.
- Plant-Based Diets: comparing CAD with the Omnish and the Eco-Akins diets.
- Moderately Overweight? You Might Live Longer: lowest risk of MI occurs in people with a BMI of 26 – 27; cardioprotection is more relevant on fitness, stress resilience and diet.

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Dr. Merrily Kuhn received a doctoral degree in Physiology followed by doctorates in Naturopathic Medicine and Holistic Medicine. She has taught graduate programs in pharmacology and complementary medicine and has been affiliated with SUNY at Buffalo. As a practicing Naturopath -- Dr. Kuhn treats a wide range of disorders presented in this program.

Dr. Kuhn has developed and presented educational programs for health professionals throughout the USA and is one of the nation’s most popular lecturers in continuing education. An outstanding, knowledgeable and humorous speaker, she presents key discoveries from medicine and complementary medicine in clear and practical terms.

ABOUT THE INSTRUCTOR