



ask the experts

A Series on Women and Nutrition



Module 2: The Optimal Diet

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BACKGROUND

In our fast-paced society, information is easy to access and lifestyles are often centered on convenience. The average consumer is bombarded with confusing and often incorrect information about nutrition. A simple Google search of "diet" returns over 2 million hits, and a narrower search indicating "optimal diet" still returns over 300,000 hits.

Simply put, the optimal diet is one that provides the body what it needs to sustain life, maximize longevity, and age well. There are many choices all around us. An individual should select foods that are minimally processed and have nutritional benefit. For example, several randomized trials by Singh et al (1) support that in terms of cardiac issues, patients who changed their diets by lowering fat intake and increasing their consumption of fruits and vegetables lost a significant amount of weight which is *cardioprotective* (www.cdc.gov/nccdphp/dnpa/nutrition/pdf/FruitVegR2P.ppt, accessed July 12, 2008). For example, within the Mediterranean there is a lifestyle and diet that promotes lower rates of heart disease, cancer, obesity and diabetes when compared to other populations. In contrast, the traditional American diet, which contains excessive amounts of processed foods and fewer nutrients, contributes to the development of disease and impedes the healing process.

WHAT PHYSICIANS NEED TO KNOW

Physicians should understand the biological mechanisms behind the benefits of the optimal diet and the important role it plays in total wellness. The many mechanisms is beyond the scope of this document, however, the importance of diet and nutrition and the modification of the inflammatory response is well documented. Inflammation is an important response of the human body in fighting infection and initiating the healing process away from injury and disease. Inflammation plays a central role in the older individual and particular diseases. As noted by Kornman et al, nutrition is one of the more promising approaches to modulation of the risk of disease of aging because of the effects certain nutrients have on gene expression (2). His efforts focus on interleukin 1 (IL 1) and the genetic variations associated with the inflammatory response and the clinical presentation of coronary artery disease, Alzheimer disease, gastric cancer, and periodontitis. Nutrition may change IL 1 genetic variations which could impact disease.

Types of fats that predominate in a diet impact inflammation. Omega 6 fats found in animal foods and vegetable oils are the precursors to pro-inflammatory eicosanoids (prostaglandins, leukotrienes and thromboxanes). In contrast, omega 3 fatty acids from plant and cold water fish sources are the precursors to anti-inflammatory eicosanoids and help to counter inflammation. Achieving a healthy ratio of these fats, promoting balance of inflammatory and anti-inflammatory compounds, is an important in influencing whether the body responds towards a state of wellness or towards illness.

Certain herbs and spices such as turmeric, cumin, rosemary and ginger have powerful anti-inflammatory activity as well (3). Most official recommendations of diet do not include specific intakes of herbs and spices, however, such substances may play an important role. There is evidence showing that there are antioxidant properties of herbs and spices in the helping modify LDL cholesterol in development of atherosclerosis, in particular garlic consumption likely lowers cholesterol.

Consuming plant-based foods is imperative for an optimal diet. Research consistently demonstrates that populations who eat higher amounts of fruits and vegetables have lower rates of chronic illness (4,5) Plant-based foods have a plethora of antioxidants and phytochemicals which help to repair and lower oxidative stress, and prevent free radical damage to our DNA and cell membranes. In choosing fruits and vegetables with the brightest colors, we are providing our bodies with compounds that detoxify carcinogens and which increase pathways that inhibit the formation of carcinogens. This ultimately changes the expression proteins that regulate cell growth (6,7).

WHAT PATIENTS NEED TO KNOW

Patients need to be empowered with the knowledge that foods they choose to eat can and to a great extent do impact overall health. This choice is powerful. Try suggesting these simple and sustainable ways to modify their diet to promote healthy outcomes:

1. Move towards a whole food plant based diet, minimizing the use of processed and packaged foods.

2. Increase fruit & vegetable intake. Choose local and organic products whenever possible.

Eat at least 7 servings of fruits and vegetables daily. Try to include 1-2 at each meal and make use of snacks to complete your daily total.

Remember to eat across all colors of fruits and vegetables to maximize health benefits.

3. Build your diet around healthy fats.

Each day consume healthy fats in the form of nuts, seeds, nut butters, extra virgin olive oil, avocado, ground flax seed and canola oil.

Try to consume cold water fish three times per week (approximately 15 oz) or consider an omega 3 supplement to boost your healthy fats.

Avoid trans fats (hydrogenated and partially hydrogenated oils)

Choose low fat animal products (meat and dairy)

4. Shift the protein sources in your diet.

Increase the use of plant proteins like beans, peas, legumes, nuts, nut butters and whole soy foods. Replace at least 3 meat meals per week with these foods.

Choose quality animal products when possible. If you do choose to eat animal products choose organic grass fed versions whenever possible.

5. Increase fiber-rich foods. Aim for 35- 40 grams per day.

Choose whole grain breads and cereals with high fiber content

6. Increase water intake.

Goal: At least 48 ounces (6 cups) daily.

7. Consider drinking 3-4 cups of white or green tea daily (caffeinated or decaffeinated)

This provides important antioxidants.

8. Take a quality multivitamin and calcium supplement if needed.

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