

Colon Cancer: A Paradigm for Early Detection and Prevention

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Colorectal cancers are the second leading cause of cancer-related deaths in men and women in the U.S. and one of the most preventable through early screening and lifestyle modifications. While numerous imaging (CT Scans) and indirect gene or occult-blood stool based tests exist, direct visualization via colonoscopy remains the gold-standard in early detection and treatment. The value of early screening can not be understated and is a preventable exam that I encourage all individuals of normal risk to consult with their doctors about, typically starting at the age of 50 years old.

In line with our previous reports over the past year, however, the emphasis of this article is a brief overview of the lifestyle and nutritional practices one can pursue to reduce their risk of developing colorectal cancer in the first place. As colon cancers develop in the large intestine, it is evident that any food or drink that passes its walls following ingestion will play a critical role in either inducing inflammation or acting as a direct cancer-promoter (carcinogen) damaging intestinal DNA and leading to cancerous changes of the intestinal lining. In this manner, certain foods including red, preserved and processed meats, saturated fats, 'white' starches and foods cooked at very high temperatures are thought to result in direct or indirect increases in colon cancer risk. Conversely, many nutrients or components found in certain food classes have been demonstrated to exert a protective effect against colon cancer and these are discussed below.

1. Vitamin D, E and Folic Acid: Common in diets rich in fish, fruit and vegetables and sold as over the counter supplements. All are thought to promote cancer protection via augmenting our innate immunity, inducing tumor cell death and directly protecting the cellular DNA from damage.
2. Calcium and Selenium: Minerals that promote auto-destructive mechanisms of cancer cells.
3. Fish Oil: Omega-3 EPA supplementation reduces general inflammation
4. Phytonutrients: Garlic (aged), ginger, milk-thistle extract, broccoli/cabbage/Brussel sprout and similar cruciferous vegetable extracts. All are plant-derived substances that reduce the development of cancer cells, promote cancer cell destruction and prevent the spread of existing cancers. NOTE: Coffee possesses many phytonutrients with anti-cancer properties. Studies examining >3 cups of coffee/day have demonstrated a 40-75% reduction in colon cancer risk compared to those who drink less.
5. Polyphenols: Resveratrol, Quercetin and curcumin. Work in similar fashion to the phytonutrients above.
6. Pharmacotherapy: Aspirin 75-100mg daily and Metformin (an antidiabetic medication) have demonstrated colon cancer preventing properties likely via their potent anti-inflammatory mechanisms of action.

Exercise, as in most ailments, works in conjunction with healthy eating habits to reduce general bodily inflammatory markers and cancerous growth factors by improving insulin sensitivity. If exercise seems daunting, just think that a simple brisk walk has been shown to reduce colon cancer risk by approximately 20-25%.

As the 2015-2016 Healthy St. Pete Ambassadorship comes to a close, we would like to share with you our excitement for the future of health in America. Whether through free or low-cost health clinics like the Free Clinic or Community Health Centers, to traditional primary care practices, the knowledge and education needed to promote health and prevent illness exists and is more accessible today than ever before. As is the case with colon cancer and so many illnesses that burden our lives today, it is up to us to put research into practice and start eating and exercising as if our lives depended on it. They do!

To your health always,

The Drs. Wojnowich