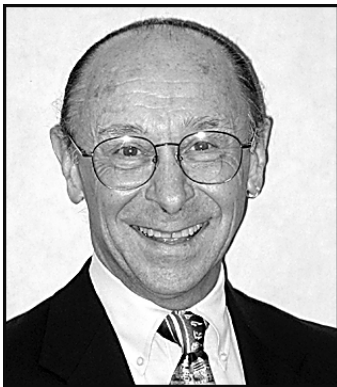


## Role of Diet in the Prevention of Colorectal Cancer



**William A. Cassidy, M.D.**

Because Colorectal Cancer (CRC) appears to be a preventable disease and appears to be at least partially related to internal "environmental" factors - specifically dietary and lifestyle factors - much effort has been expended researching this connection.

Dietary considerations have obviously received a great deal of attention.

### **MEAT -**

The great preponderance of data identifies a link between the consumption of red meat and an increased risk of CRC. Although previous studies have suggested that the risk from eating red meat is from the high content of fat in it, more recent studies now suggest that it might be the manner in which the meat is cooked that creates the risk. Meat cooked at high temperatures leads to the production of chemicals that may be carcinogenic.

### **FIBER -**

Since studies in the 1970s linking the high fiber content of the diet of rural African natives and their low rates of CRC, it has become dogma that dietary fiber imparts a protection effect upon the colon. Although not all studies of fiber have shown a protective effect against CRC, there are a large number of chemicals in plants that have been shown to be anti-carcinogenic.

### **CALCIUM -**

Many studies suggest a protective effect of calcium against CRC. The effort is shown only where there is a high level of Vitamin D intake. Calcium supplementation in recommended doses (1000-1200mg/d) is essentially free of side effects and most people in the US don't consume the RDA for calcium.

### **MICRONUTRIENTS -**

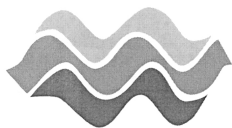
Given the relationship between high intake of dietary fat and a lower risk of CRC, the consideration that vitamins, especially the anti-oxidants vitamins A, C & E, might impart a protective effect in the colon. Anti-oxidants prevent damage to DNA by inhibiting free radical reactions. Unfortunately, trials of anti-oxidant vitamins have failed to show any protective effect against CRC. In a trial of selenium to prevent skin cancer, unexpectedly, it was found that CRC deaths were 60% less among those taking selenium. A number of studies also suggest that supplemental folic acid might be associated with a decreased risk of CRC.

### **CONCLUSION -**

A sensible diet high in fiber and vitamins, limited in red meats, and supplemented with reasonable doses of calcium and folic acid might have a favorable effect on the development of CRC. Although a beneficial effect in terms of CRC from these recommendations has not yet been proven, the data are compelling enough to justify making these recommendations.

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