Nutrition and Medicine, 2006
Tufts University School of Medicine
Nutrition and Cancer:
Lecture Outline

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I. Background
   A. Relationship of diet to cancer
   B. Causes of cancer
   C. Foodborne inhibitors of experimental cancer (animal studies)
   D. Foodborne carcinogens
   E. International cancer rates
      1. Distribution of cancers
      2. Comparison of high and low risk countries
      3. Changing cancer rates
   F. Major themes in cancer
      1. Antioxidants (A, E, C, Carotenoids)
      2. Dietary fat
      3. Dietary Fiber
      4. Phytochemicals

II. The Black Box of Cancer
   A. Initiation
   B. Promotion
   C. Research approaches to diet and cancer
   D. Methodology to evaluate the research data

III. Nutrients Linked to Cancer
   A. Antioxidants
      1. Endogenous
      2. Exogenous
      3. Mechanism
      4. Current intake in U.S.
      5. Major food sources of antioxidants in U.S.

      Retinoids (13 cis-retinoic acid)
      1. Cancers and retinoids
      2. Mechanism
      3. Clinical trials
   B. Fat intake
      1. Breast cancer
      2. Colon cancer
      3. Mechanism
   C. Fiber intake
      1. Colon cancer

2. Breast cancer

D. Plant compounds - Phytochemicals
   1. Isoflavonoids
   2. Lignans
   3. Soy intake in countries at low risk for breast and prostate cancer

IV. Nutritional Assessment of the Patient to Ascertain Risk of Cancer

V. Dietary Recommendations to Decrease Risk of Cancer