



Lecture 88:

Dietary Changes in Common Cancers

Part 2

Copyright Protection:

- This lecture note is owned by the “Canadian Academy of Sports Nutrition” and all rights are reserved and protected by copyright and trademark laws, international conventions, and all other laws relating to the protection of intellectual property and proprietary rights.
- No part of the content of this lecture note may be reproduced, stored in retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the Canadian Academy of Sports Nutrition. Unauthorized use, display or distribution of any part of the content of this lecture note is deemed copyright infringement.

Three Common Cancers:

- **Breast Cancer.**
- **Colon Cancer.**
- **Prostate Cancer.**

Colon Cancer:

- Colon cancer is the third common cancer in the world.



Image: Copyright©Depositphotos.com/Antonio Gravante

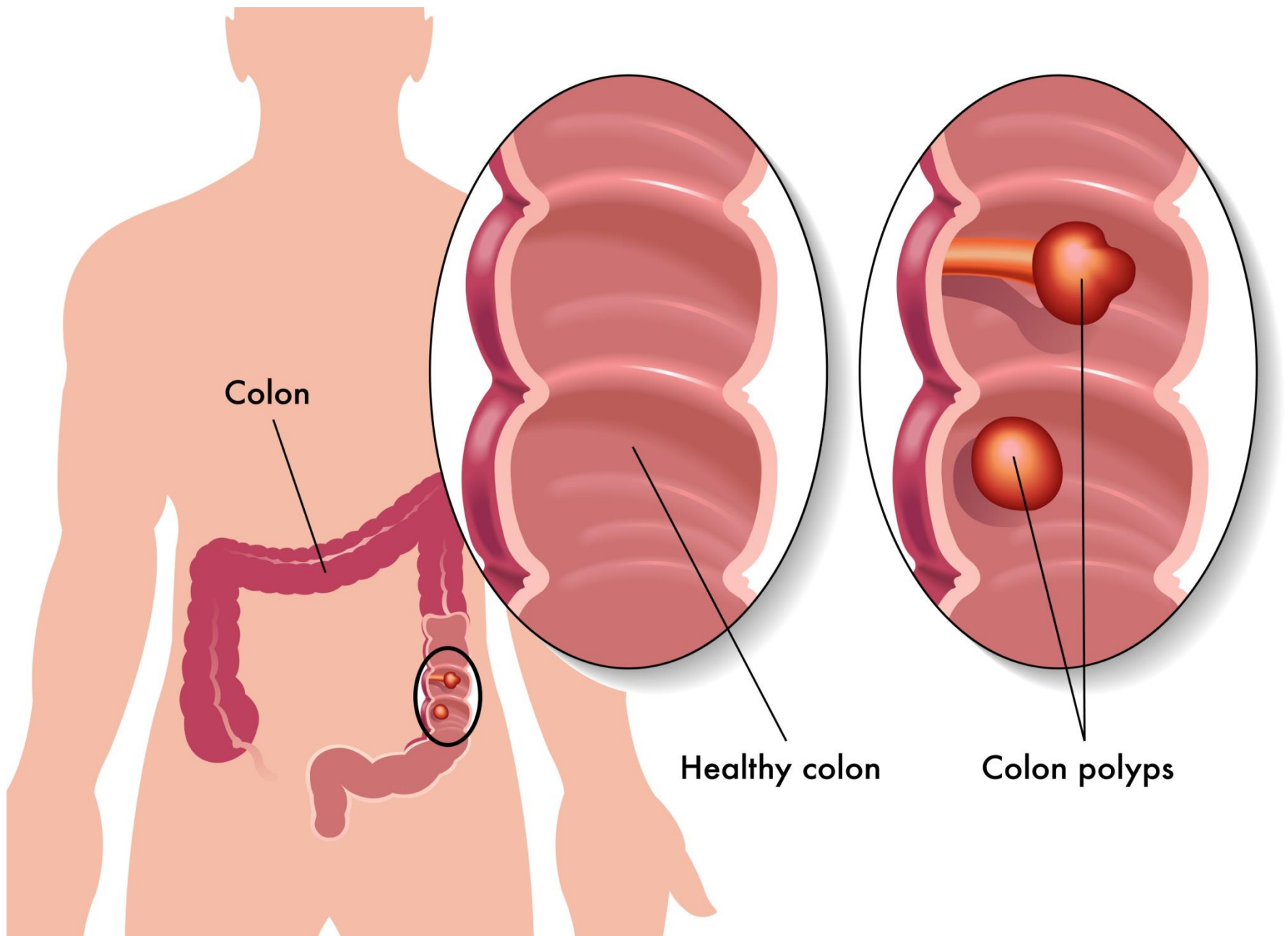
Colon cancer is characterized by:

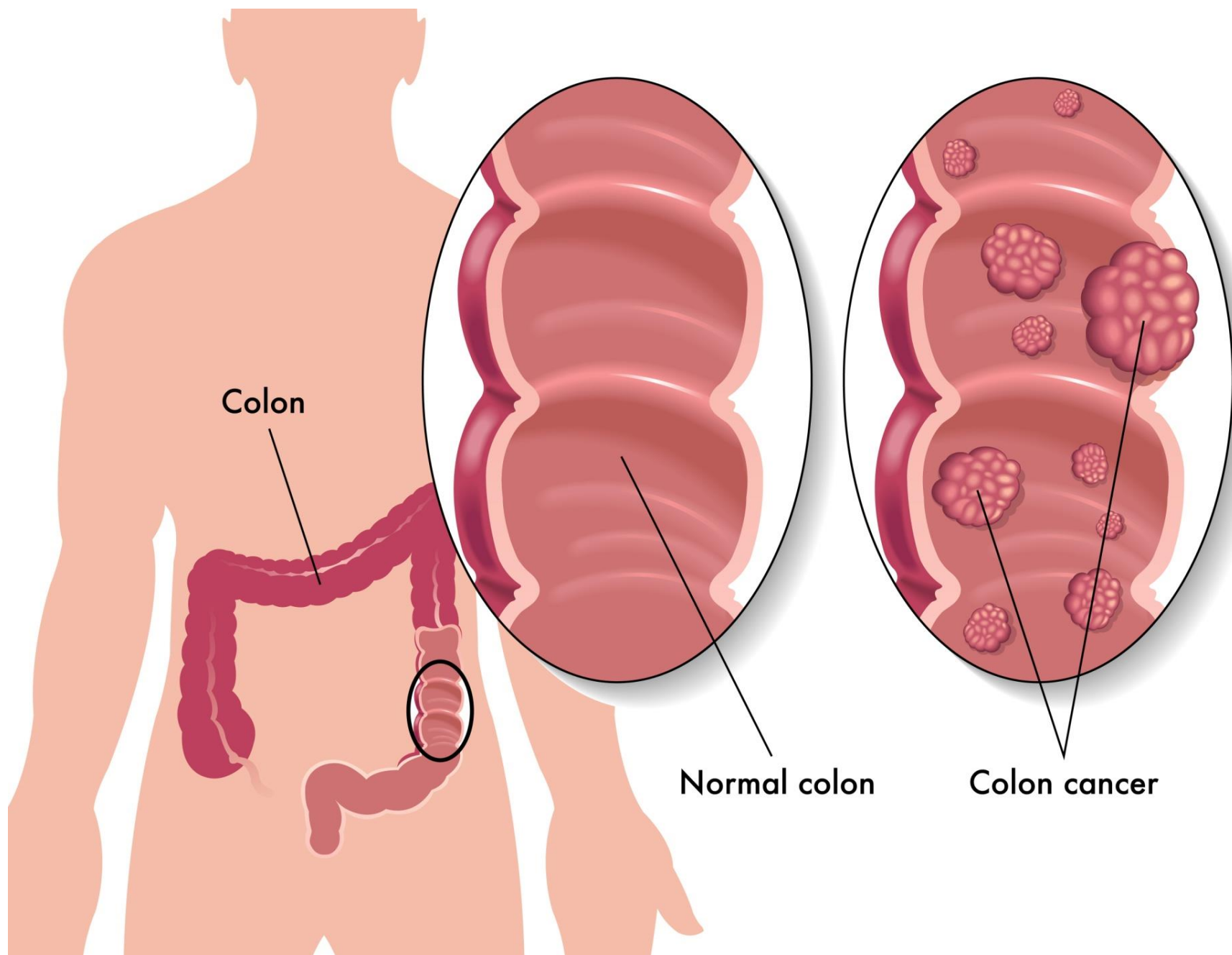
- **noticeable alterations in bowel habits and they include constipation, diarrhea, changes in stool caliber, rectal bleeding, dull abdominal pain, and bowel obstruction.**
- **anemia.**
- **systemic symptoms such as fever, anorexia, weight loss, and fatigue.**

Potential risk factors for colon cancer are:

- **1) Older age.**
- **2) Male gender.**
- **3) Nutritional factors:**
 - **Poor fiber diet.**
 - **Saturated fats.**
 - **High calories diets.**
 - **Deficiencies of folic acid, selenium, calcium, vitamin C, vitamin D, Omega-3, and antioxidants.**
 - **Red meats.**

- 4) Obesity.
- 5) Genetics and hereditary.
- 6) Inflammatory bowel disease, especially ulcerative colitis.
- 7) **Polyps** of the colon.
- 8) Smoking.
- 9) Infection with a bacterium called streptococcus bovis.
- 10) Night-time shift works.
- 11) Dysbiosis (imbalance between good bacteria and bad bacteria).





Banned Foods:

- Sugar and sweets. They have negative impacts on the immune system. Also the main nutrient for cancer cells is glucose.
- Animal fats. It has been hypothesized that animal fats increase the proportion of anaerobic bacteria in the gut flora, leading to conversion of normal bile acids into carcinogens.

- **Red meats.**
- **Alcoholic beverages.**
- **Carbonated beverages.**
- **Refined foods.**
- **Process foods.**
- **Food colorings, flavourings, additives and preservatives.**
- **MSG (monosodium glutamate)-containing foods.**

Recommended Foods:

- **Drink plenty of water:** at least 2 liters a day.
- **Whole grains.**
- **Foods high in fiber:** lentils, beans, avocado, and artichoke.
- **Foods high in folic acid:** green leafy vegetables.
- **Alkaline diet.**
- **Flaxseeds.**

- **Foods high in omega-3:** fish, flaxseeds, chia seeds, and hemp seeds.
- **Fruits and vegetables high in flavonoids:** berries, red grapes, grapefruit, pomegranate, sea buckthorn, persimmon, kiwi, beets, basil, garlic, parsley, radish, radicchio, rhubarb and parsnips.
- **Garlic.**
- **Onion.**

- **Foods high in glutathione:** asparagus, avocado, and walnuts.
- Cinnamon.
- Turmeric.
- Ginger.
- Green tea.

Recommended Supplements:

- **Folic acid:** 1000 mcg a day. This vitamin has a protective effect against colon cancer.
- **Selenium:** 200 – 400 mcg a day. This mineral reduces the risk of developing colon cancer.
- **Melatonin:** 6 – 18 mg a day. Melatonin has an anticancer activity against colon cancer especially in those who have night shift works.

- **Calcium:** 1000 mg a day.
- **Vitamin D:** 2000 – 5000 IU a day.
- **Curcumin:** 1000 – 1500 mg a day. It has detoxifying, anti-inflammatory and anti-cancer activities.
- **Aloe Vera juice** (containing no aloin): $\frac{1}{4}$ to $\frac{1}{2}$ cup three times a day.
- **Vitamin C:** 2 – 3 grams.

- **Omega – 3 fatty acids:** 3 – 5 grams a day.
- **French Maritime Pine Bark Extract:** 100 – 200 mg a day.
- **Grape seed extract:** 50 -100 mg a day.
- **Glutathione:** 500 – 1000 mg a day. It is a potent antioxidant that plays a key role in liver detoxification.

- **Spirulina:** as a tablet: 2000 – 3000 mg a day, or as a powder: 2 – 3 teaspoons a day. Spirulina has anti-cancer, detoxifying, immune-boosting and alkalizing properties.
- **Digestive enzymes:** A full spectrum product.
- **Probiotics:** take a product that provides 10 to 30 billion organisms per serving.
- **Multivitamins – Multiminerals:** A high potency product.

Prostate Cancer:

- Prostate cancer is the most common cancer among men. It usually progresses gradually and rarely causes symptoms at the early stages until it is advanced.



Prostate cancer is a common and slowly progressing cancer in men.

Image: Copyright©Depositphotos.com /decade3d decade3d

Signs and symptoms in advanced prostate cancer include:

- **hematuria (blood in urine)**
- **straining and hesitancy**
- **weak or intermittent urine stream**
- **urinary frequency**
- **a sense of incomplete emptying and terminal dribbling**
- **burning feeling when urinating**

- **painful ejaculation, difficulty having an erection, and blood in semen**
- **bone pain (in case if the disease has spread to the bones, especially to the lower back and hips)**

Potential contributing factors:

- **Family history and genetics.**
- **Older age.**
- **Ethnicity: more common in African-American men and less common in Asian men.**
- **Increased level of testosterone.**
- **Obesity.**
- **Sexually transmitted diseases.**

- **Nutritional factors:**
 - **Diets high in red meats and dairy products.**
 - **Saturated fats.**
 - **Deficiencies of selenium, vitamin E, lycopene, phytoestrogens, Omega-3 fatty acids, and vitamin D.**

Grow a Mo
for
November
Men's Health Awareness



Restricted Foods:

- **Refined sugars and sweets.**
- **Saturated fats.**
- **Trans-fats.**
- **Fried foods.**
- **Processed foods.**
- **Red meat**
- **Food additives and preservatives.**
- **Dairy products.**

Recommended Foods:

- Whole grains.
- **Foods high in fiber:** lentils, beans, avocado and artichoke.
- **Foods high in Omega-3:** fish, flaxseed, hemp seed, chiaseed, and walnuts.

- **Fresh fruits and vegetables.**
- **Foods high in flavonoids:** berries and red grapes.

- **Foods high in phytoestrogens:**
 - **High in lignans:** flaxseed (the highest amount), sesame seeds, sunflower seeds, nuts (pistachios, almonds, walnuts, cashews and hazelnuts), oatmeal, rye, barley, wheat, legumes (lentils, navy beans, kidney beans, pinto and fava beans), soybean, alfalfa sprouts, cabbage, asparagus, green pepper, broccoli, cucumber, apricots, strawberries, peaches, raspberries, and dried prunes.

- **High in coumestans:** alfalfa sprouts, lima beans, pinto beans, and split peas.
- **High in isoflavones:** soybeans, soy products (tofu, tempeh, and miso), alfalfa sprouts, green beans, chick peas, and peanuts.

- **Garlic.**
- **Onion.**
- **Foods high in folic acid: green leafy vegetables.**
- **Foods high in lycopene: gac, tomatoes, watermelon, pink grapefruit, guava, apricot, papaya, persimmon, parsley, basil, asparagus, chili pepper, and red cabbage.**
- **Shiitake mushroom.**
- **Ginger.**
- **Turmeric.**
- **Green tea.**

Recommended Supplements:

- **Lycopene:** 20 – 40 mg a day. It is a carotenoid that has a protective effect against prostate cancer.
- **Selenium:** 200 – 400 mcg a day.
- **Melatonin:** 6 – 18 mg a day. Melatonin has an anticancer activity against prostate cancer especially in those who have night shift works.

- **Resveratrol:** 200 – 400 mg a day. It is a powerful antioxidant with an anti-cancer activity.
- **Vitamin B17 (Laetrile; Amygdalin):** 500 – 1000 mg a day. This vitamin has an anti-cancer activity.
- **Co – Enzyme Q10:** 200 – 500 mg a day.
- **Vitamin D:** 2000 – 5000 IU a day.

- **Vitamin E:** 400 – 800 IU a day.
- **Curcumin:** 1000 – 1500 mg a day. It has detoxifying, anti-inflammatory and anti-cancer activities.
- **Aloe Vera juice** (containing no aloin): $\frac{1}{4}$ to $\frac{1}{2}$ cup three times a day.

- **Omega – 3 fatty acids: 1 – 3 grams a day.**
- **French Maritime Pine Bark Extract: 100 – 200 mg a day.**
- **Grape seed extract: 50 -100 mg a day.**

- **Spirulina:** as a tablet: 2000 – 3000 mg a day, or as a powder: 2 – 3 teaspoons a day. Spirulina has anti-cancer, detoxifying, immune-boosting and alkalizing properties.
- **Pygeum africanum extract** (containing 13% total sterols): 100 – 200 mg a day.

- **Shiitake mushroom:** dried form 6 – 12 grams a day, or in the form of LEM (lentinus edodes mycelium extract) 3 – 6 grams a day.

The key ingredient in shiitake mushroom is **lentinan**, which shows activity against prostate cancer.

- **Maitake mushroom:** 600 – 1200 mg a day or Maitake D-Fraction: 6 to 12 drops of liquid per day. The active ingredient in maitake mushroom is beta-D-glucan and has shown promising results against cancers especially breast and prostate cancers.
- **Digestive enzymes:** A full spectrum product.
- **Probiotics:** take a product that provides 15 to 20 billion organisms per serving.

Miscellaneous Suggestions:

- **Liver detoxification.**
- **Colon cleansing.**

Homework:

- **1) Describe your protective supplementation protocol against colon cancer.**
- **2) Describe dietary risk factors for developing prostate cancer.**

