EAT TO PROTECT YOUR HEALTH, AND REDUCE THE RISK OF CANCER

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WHAT MAY AFFECT THE RISK OF CANCER?

The American Institute for Cancer Research

“Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective”

The result of an analysis of over 7000 research studies on the link between diet, lifestyle and cancer, and for the first time cancer survivors

www.aicr.org → “comprehensive global report” → 10 Recommendations, last one specific to survivors.
The American Institute for Cancer Research Recommendations:

1. Be as lean as possible without becoming underweight.

2. Be physically active for at least 30 minutes every day.

3. Avoid sugary drinks. Limit consumption of energy-dense foods. → due to correlation with obesity

4. Eat more of a variety of vegetables, fruits, whole grains and legumes such as beans.

5. Limit consumption of red meats (such as beef, pork and lamb) and avoid ALL processed meats. → 11 – 18 oz per week max
6. If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day. → 12 oz beer, 5 oz wine, 1.5 oz spirits

7. Limit consumption of salty foods and foods processed with salt (sodium). → stomach cancer (also moldy foods due to liver cancer in developing countries)

8. Don’t use supplements to protect against cancer.

9. It is best for mothers to breastfeed exclusively for up to 6 months and then add other liquids and foods. → reduce breast cancer in mom and obesity in child

10. After treatment, cancer survivors should follow the recommendations for cancer prevention.

*Special Population Recommendations
EVERYDAY WE ARE CONFRONTED WITH FOOD CHOICES......
WATCH YOUR WEIGHT!

- 65% of Americans are overweight or obese.

- *Only 6% of Americans identify being overweight or obese as a risk factor for cancer despite a clearly established scientific link.*

- Research shows that fat cells can act as "hormone pumps," secreting hormones and other growth factors into the bloodstream.

- If the body's cells are exposed to very high levels of these substances over an extended period, they tend to reproduce more quickly → ? Increase cancer cell growth.

- Researchers stress that this potentially dangerous condition is reversible!
PHYSICAL ACTIVITY AND CANCER:

CRITICAL FOR WEIGHT CONTROL
GROWTH HORMONE REGULATION
STRESS MANAGEMENT
COUNTERACTS FATIGUE
SUPPORTS THE IMMUNE SYSTEM

- New Guidelines from the Dept of Health & Human Services
  Minimum 150 min moderate, or 75 min vigorous to reduce risk of chronic disease
  - Ideally aim for more – and necessary if weight loss and maintenance of loss is the goal – 300 min of moderate or 150 minutes of vigorous.

- Physical activity linked to lower risk of breast, prostate and colorectal cancer
HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

The more veggies—and the greater the variety—the better. Potatoes and french fries don’t count.

Eat plenty of fruits of all colors.

Vegetables

Whole grains

Fruits

Healthy protein

Healthy Oils

Water

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

Eat whole grains (like brown rice, whole-wheat bread, and whole-grain pasta). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat; avoid bacon, cold cuts, and other processed meats.

STAY ACTIVE!

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Harvard School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu
IN ADDITION TO WEIGHT CONTROL FRUITS & VEGETABLES MAY OFFER A PROTECTIVE EFFECTS:
PHYTONUTRIENTS: PREVENTION IN A PLANT

What are They?

Plant foods contain thousands of natural chemicals. These are called phytonutrients or phytochemicals. "Phyto" refers to the Greek word for plant. These chemicals help protect plants from germs, fungi, bugs, and other threats.

How do they work?

- Stimulate enzymes that help the body detoxify
- Reduce the genetic damage from cancer causing agents
- May interfere with growth and multiplication of cancer cells
- Decrease inflammation
PHYTONUTRIENTS: PREVENTION IN A PLANT

Where are They Found?

Fruits and vegetables contain phytonutrients. Other plant-based foods also contain phytonutrients, such as:

- Whole grains
- Nuts
- Beans
- Tea

Beyond vitamins, minerals and fiber, natural compounds found in plants may exert profound disease preventive effects.

The “immune system” of a plant – many also represent the pigment that gives the plant it’s color.
FRUITS & VEGETABLES..THE BRIGHTER THE BETTER

PLANT PIGMENTS HELP PLANTS AS WELL AS HUMANS: addition to attracting animals, such as protecting it from UV damage, dampening the effects of excess light, enabling photosynthesis, and even acting as endogenous antioxidants (plants can’t really sip red wine and pop supplements, after all).

Luckily, it appears that we can leverage many of these pigments for our own gain by eating brightly colored fruits and vegetables.
Lutein = **Green vegetables** Broccoli, spinach, kale, and collard greens

- reduces risk of cardiovascular disease
- protects eyes from cataracts and macular degeneration
- antioxidant

Carotene = **Orange/Yellow** Fruits & Vegetables; carrots, yams, pumpkin, apricots, and cantaloupe

- helps increase immune system
- helps prevent liver, lung and skin cancer
- slows progression of cataracts
- helps to boost immunity
- antioxidant
Antocyanins = Blue / Purple Fruits and Vegetables; blueberries, blackberries, eggplant, plum, strawberries, acai, cherry, red grapes, apples

- anti-inflammatory
- may assist in combating cancer cells
- may assist in combating diabetes
- antioxidants

Resveratrol = Blue / Purple Concord grapes, skin of red grapes, red wine, grape juice

- heart health (vasorelaxation)
- cancer prevention
Lycopene = Red Fruits and Vegetables. Cooked tomatoes, have more than raw as, cooking and crushing helps get it into the bloodstream. Watermelon, and papaya are also good sources.

- reduced risk of prostate and lung cancers

Antioxidants work by binding free radicals= prevent cellular damage
Food First!

Phytonutrients work together to provide a synergistic benefit
Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

The more veggies—and the greater the variety—the better. Potatoes and french fries don’t count.

Eat plenty of fruits of all colors.

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

Eat whole grains (like brown rice, whole-wheat bread, and whole-grain pasta). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat; avoid bacon, cold cuts, and other processed meats.

**STAY ACTIVE!**
10 BASIC GOALS

1. Plan a meal or snack every 4-5 hours
2. Choose carbohydrates that are high in fiber and low in fat.
3. Limit concentrated sweets
4. Include lean proteins with each meal
5. Include lots of fresh fruits and vegetables
6. Choose unsaturated fats over saturated
7. Limit sodium from processed foods
8. Exercise 30 minutes, 5 x per week
9. Drink at least 5 glasses of water
10. Become familiar with your habits
DONUT VS ORANGE

200 calories
10 grams sugar
0 grams fiber
0 phytonutrients

62 calories
12 grams sugar
3 grams fiber
170 phytonutrients
75% of Americans don’t eat “5 a day”

Americans eat 1.5 servings of vegetables & less than 1 serving of fruit daily, despite consistent evidence that these foods decrease the risk of many chronic diseases.

We throw away more than 11 billion pounds of fruits and vegetables every year in the US!!

Americans spent $26.7 billion per year on dietary supplements in 2009 despite limited and inconclusive scientific evidence of effectiveness in disease prevention and treatment
TYPICAL AMERICAN PLATE
Include protein from plants: legumes, nuts, seeds, quinoa
CHOOSE MORE PLANT PROTEIN

INCLUDE 5-10 servings fruits & veggies each day

• 1 serving = 1/2 cup cut, cooked or sliced; 1 piece medium fruit; 1 cup leafy greens

Emphasis on variety

Richly colored plant foods are most phytonutrient-dense
ALCOHOL

- Limit alcohol intake
  - < 1 drink/day for women
  - < 2 drinks/day for men

- Women who consume 1 drink or more/day have an increased risk of breast cancer (10-40% increased risk)

- Adequate folate intake (400mcg/d) may reduce the increased risk of breast cancer associated with alcohol use
AICR: LIMIT RED MEAT INTAKE

- Limit red meat to 18 ounces per week (includes beef, pork, and lamb), with a long-term goal of no more than 11 oz/week.

- Avoid processed meats

- “Processed meat” refers to meats preserved by smoking, curing or salting, or by the addition of preservatives (ham, bacon, pastrami, salami, hot dogs, and sausages).

- When meat is preserved by smoking, curing or salting, or by the addition of preservatives, cancer-causing substances (carcinogens) can be formed. These substances can damage cells in the body, leading to the development of cancer.

- Studies show people who eat more meat often eat less plant-based food.
**DIETARY FAT AND CANCER**

**Bottom Line:** NO Trans Fats, I Encourage Mono’s and Omega 3’s; limit Saturated as they are often processed. Always keeping an eye on portion control

- Issue has been raised in colorectal, breast, pancreatic, prostate cancer, and possibly others

- AICR Global found no “probable or convincing” connection between cancer and total fat intake (only “limited/suggestive” with post-menopausal breast cancer and lung cancer → weak)

- Concern is primarily with saturated fat, but it is difficult to know exactly what fat effects, is it calorie and excess weight, or is it tied to the source of fat, i.e. high intakes of red and processed meats.
OMEGA 3 FATS

- Anti-inflammatory
- Reduce muscle wasting during treatment (cancer cachexia)
- Great for your cardiovascular system

- Salmon, herring, sardines, mackerel

- Aim for 4 oz of oily fish 2-3 times a week

- Daily goal: 1000 mg of combined EPA/DHA
SOME STUDIES SHOW HIGH DOSE NUTRIENT SUPPLEMENTATION CAN BE DETRIMENTAL:

Beta carotene supplementation in smokers


  Effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease.
INSULIN AND CANCER

- Excess insulin can promote tumor cell growth

- **Behaviors that increase insulin levels**
  - Consumption of refined sugar and flour
  - Overeating
  - Weight gain
  - Sedentary lifestyle

- **Behavior that reduces insulin levels**
  - Physical activity, weight loss, unrefined carbs

Lower fasting insulin level at time of breast cancer diagnosis is associated with improved survival.
ORGANIC VS. CONVENTIONAL

- No scientific evidence to date that organic offers anti-cancer advantage at this point
  - one study suggested organic blueberries significantly higher sugars (fructose and glucose), malic acid, total phenolics, total anthocyanins, and antioxidant activity (ORAC) *
- Thousands of studies support the health benefits of diets high in fruits & vegetables and none done exclusively on organics
- More than ½ of dietary pesticide exposure comes from 12 foods – EWG “Dirty Dozen”

**Bottom line: wash things thoroughly and don’t let this decrease # of fruits/vegetables you eat!**

DIRTY 
DOZEN™ 2013

APPLES
CELERY
CHERRY
TOMATOES
CUCUMBERS
GRAPE
HOT PEPPERS
PLUS
COLLARDS & KALE*
SUMMER SQUASH & ZUCCHINI*

NECTARINES
PEACHES
POTATOES
SPINACH
STRAWBERRIES
SWEET BELL PEPPERS

CLEAN 
FIFTEEN™ 2013

ASPARAGUS
AVOCADO
CABBAGE
CANTALOupe
CORN
EGGPLANT
GRAPEFRUIT
KIWI
MANGOS
MUSHROOMS

Onions
Papayas
Pineapples
Sweet Peas
Frozen
Sweet Potatoes

QUESTIONS ABOUT PESTICIDES IN PRODUCE? VISIT US AT
FOODNEWS.ORG

*PESTICIDES OF SPECIAL CONCERN