Nutrition and Lung Cancer

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Meals to Heal
Objectives

• The goals of nutrition before, during, and after the completion of treatment

• Sources of nutrition for healing and maintenance- what to include and what to avoid
American Institute for Cancer Research

- Be as lean as possible without becoming underweight.
- Be physically active for at least 30 minutes every day.
- Avoid sugary drinks. Limit consumption of energy-dense foods.
- Eat more of a variety of vegetables, fruits, whole grains and legumes such as beans.
- Limit consumption of red meats (beef, pork and lamb) and avoid processed meats.
- If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day.
- Limit consumption of salty foods and foods processed with salt (sodium).
- Don't use supplements to protect against cancer.
- And always remember . . . Do not use tobacco in any form.
Maintain a Healthy Weight

- Waist circumference
  - Men < 40 inches
  - Women < 35 inches
- Smaller, more frequent meals and snacks
- Focus on fiber & protein
  - Mindful eating
  - Increase satiety
  - Stabilize blood sugar
    - 25-30 grams fiber per day
Nutrient Dense Food First

• Minimally processed plant based
  • 8-10 servings of fruits and vegetables every day
    • Green leafy vegetables
      • kale, chard, mustard/collard greens
      • blueberries, blackberries
  • Make your grains “whole”
    • 100% whole wheat/grain, barley, amaranth, rye, quinoa
  • Beans & Legumes
  • Excellent source of iron, protein, fiber and folate
    • Hummus – try adding avocado, lima beans, or edamame
• Healthy Fats
  • Nuts, seeds, avocado, olives/olive oil, canola oil, flax seed, fish
• Calcium rich foods
• Lean protein
Nutrition Through Treatment
• Protein
  • Building blocks of red & white blood cells
  • Maintains strength, rebuilds tissue
  • Key nutrient for maintaining immune function
• Vitamins and minerals
  • Iron, Vitamins C and B for making blood cells
  • Antioxidants to help maintain integrity of cells
  • Calcium + Vitamin D for bone health
• Calories
  • Provide energy for all bodily functions
  • Keeps body from breaking down protein
  • Increased need when body is stressed
• Fluids
  • Required for blood volume
  • Electrolyte balance
Proper Nutrition

- Help the body to maintain healthy cells and support repair
- Maintain a sense of well-being
- Reduce risk of illness
- Help to maximize the impact of treatment

Poor Nutrition

- Can reduce quality of life and functional status
- Increase risk for other illness
- Reduce our body’s natural defenses
- Limit body’s ability to repair itself
Maintain Your Weight

• Weight loss during treatment can increase fatigue
• Adequate nutrition are essential for:
  • Rebuilding and maintaining blood cells
  • Immune function
  • Preserving lean muscle mass
  • Optimizing energy
  • Hydration
Caution when using supplements

- Not FDA regulated
- Blood thinning or thickening properties
  - Vitamin K (K2)
- Altered metabolism
  - Grapefruit, Green tea & Velcade
- Antioxidants and chemo/radiation
- Hormonal properties
  - Soy Isoflavone & Estrogen
- High dose of herb/vitamin toxicity
- Fact check:
  - Memorial Sloan Kettering Herbal Database
  - Quack Watch
<table>
<thead>
<tr>
<th>Color</th>
<th>Phytochemical</th>
<th>Fruit/Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Lycopene</td>
<td>Tomatoes and tomato products, pink grapefruit, watermelon</td>
</tr>
<tr>
<td>Red/purple</td>
<td>Anthocyanins, polyphenols</td>
<td>Berries, grapes, red wine, prunes</td>
</tr>
<tr>
<td>Orange</td>
<td>$\alpha$, $\beta$-carotene</td>
<td>Carrots, mangoes, pumpkin</td>
</tr>
<tr>
<td>Orange/yellow</td>
<td>$\beta$-cryptoxanthin, flavonoids</td>
<td>Cantaloupe, peaches, oranges, papaya, nectarines</td>
</tr>
<tr>
<td>Yellow/green</td>
<td>Lutein, zeaxanthin</td>
<td>Spinach, avocado, honeydew, collard and turnip greens</td>
</tr>
<tr>
<td>Green</td>
<td>Sulforaphanes, indoles</td>
<td>Cabbage, broccoli, Brussels sprouts, cauliflower</td>
</tr>
<tr>
<td>White/green</td>
<td>Allyl sulphides</td>
<td>Leeks, onion, garlic, chives</td>
</tr>
</tbody>
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Resources

- American Institute for Cancer Research
  - www.aicr.org

- Academy of Nutrition and Dietetics
  - www.eatright.org

- www.foodsafety.gov

- Memorial Sloan Kettering Herbal Database
  - www.mskcc.org/mskcc/html/11570.cfm

- Quack Watch
  - www.quackwatch.com