

OCTOBER

BREAST CANCER

AWARENESS MONTH



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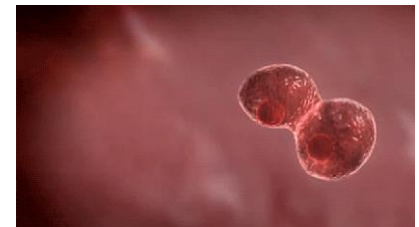
BREAST CANCER & DIET

Dept. of Nutrition & Dietetics



CANCER?

Cancer is the abnormal, uncontrollable, continuous replication of cells which will inevitably lead to the formation of a tumor.





BREAST CANCER

DIET DURING THE TREATMENT OF CANCER

WHY
NEUTROPENIC
DIET?

Neutropenia

- Following chemotherapy there is a risk of infection from bacteria or fungus in foods. This is due to:
 1. The white blood cells that would usually fight food poisoning bacteria are at a low level (neutropenia)
 2. The gut lining acts as a barrier between bacteria and the blood stream. Chemo and RT damage the gut lining making it easier for the bacteria to affect and cause GI distress.

Neutropenic Diet

Foods to Avoid

- Raw and undercooked meats, tofu, eggs, and egg substitutes
- Unpasteurized dairy products and juices
- Soft cheeses and those with molds, chili peppers, or uncooked vegetables
- Raw vegetable sprouts
- Raw or non-heat-treated honey
- Moldy or outdated food
- Well water (unless tested daily)
- Unroasted nuts or roasted nuts in the shell
- Raw grain products
- Raw egg-containing foods (e.g., cookie dough)
- Eating at delicatessens

Foods That Can Be Eaten

- Hard or processed cheeses and soft cheeses from pasteurized milk
- Fully cooked smoked fish or seafood
- Hot dogs reheated to steaming hot
- Grilled sandwiches with steaming hot meat or poultry
- Fully cooked fish
- Fully cooked eggs
- Fruits and vegetables that are washed thoroughly (even those with skin that will be peeled or those items stating they are prewashed)
- Cooked vegetable sprouts

Side effects of chemotherapy



OncoStem
empowering choices



Hair loss



Nausea & Vomiting



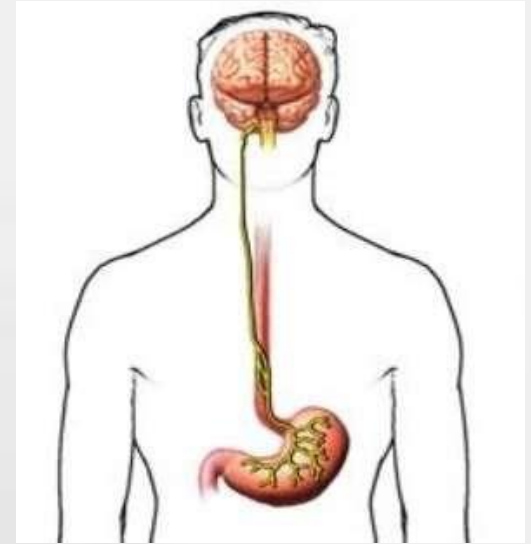
Fatigue



Diarrhea

Nausea and vomiting

- Vomiting is stimulated by sensory receptors in the stomach including **stretch receptors** and **chemoreceptors**.
- The **emetic center** in the brain responds to these signals by causing a wave of reverse peristalsis.
- Chemotherapy causes nausea by acting both on the brain and stomach.



Recommendation



- Eat small, frequent meals.
- Avoid greasy or high fat foods. As it remain in the stomach longer increasing the chance to vomit.
- Avoid foods with strong odors or flavors as it causes ‘nausea flashback’.
- Eat food that are easy to digest.

Oral and esophageal mucositis

- ▶ Mucositis begins with the tissues feeling dry and looking red.
- ▶ The mouth and throat are sore.
- ▶ This is followed by swelling, ulcerations and bleeding.
- ▶ Give soft non-irritating foods such as nonfat yoghurt, oatmeal, pureed vegetables and mashed potatoes & yams.
- ▶ Avoid spicy foods.

Constipation

- **Treatment side effects:** sore mouth, nausea, vomiting and lack of appetite. These greatly reduce the consumption of fibrous foods causing constipation.
- **Medication:** For example the opioid painkillers can reduce peristalsis.
- **Decreased activity:** cancer treatment often leaves a patient feeling tired and drained.
- **Stress**
- **Loss of nerve function in the colonic muscle:** Radiation and surgery can sometimes result in a temporary or permanent loss of muscle tone due to nerve damage.



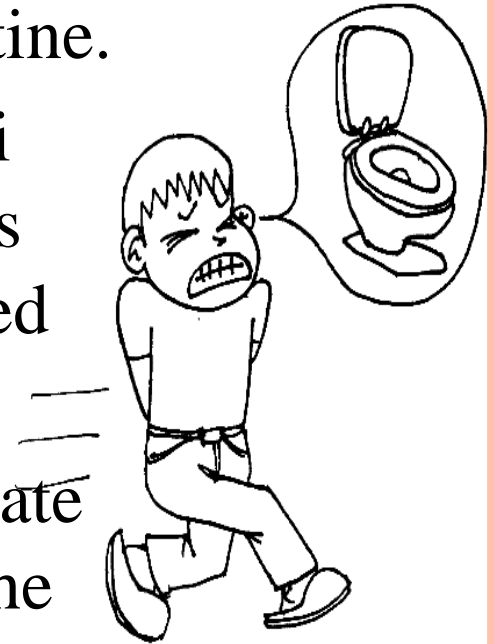
Recommendation

- Increasing dietary fiber.
- Increasing amount of fluid intake.
- Drinking hot or warm liquid before a meal stimulates gastrointestinal tract movement.



DIARRRHEA

- Chemotherapy or radiation sometimes has a toxic effect on the lining of the small intestine.
- Some drugs can injure the villi & microvilli preventing the absorption of some nutrients decreasing the amount of enzymes produced for digestion.
- In large intestine some drugs increase the rate of peristalsis and the transit time through the colon, resulting in less time for the water to be reabsorbed.
- Some temporary intolerance to milk sugar because of the temporary absence of enzyme lactase.





Recommendation

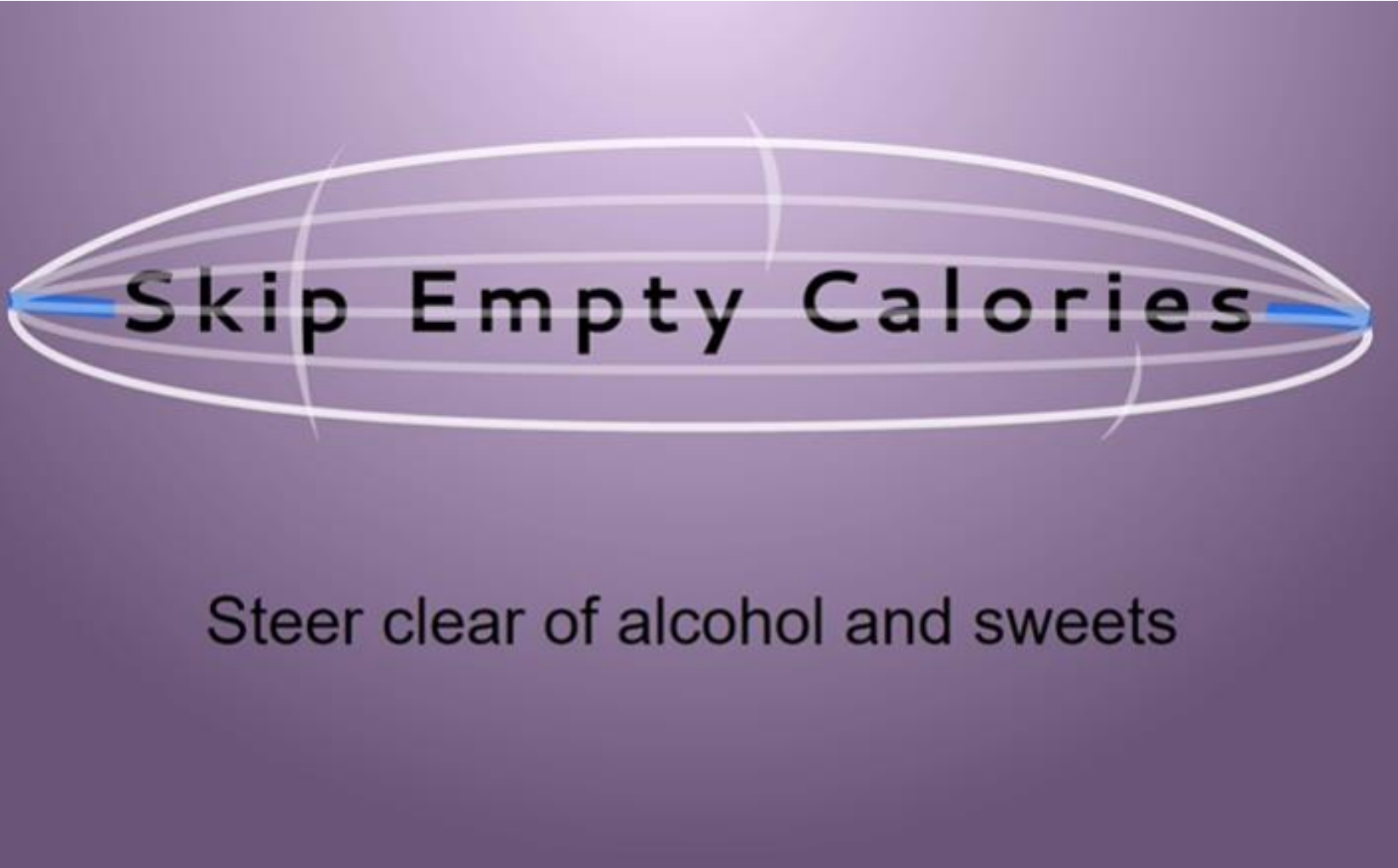
- Hot food stimulate muscle movement and may cause diarrhea. Try cold food at room temperature.
- Avoid raw foods.
- Avoid milk or other dairy products.
- Give food that are easily digestible or absorbed.

- **Energy:** Restrict junk ,empty calories, simple carbs.
Include more of Complex carbs, fiber rich
- **Protein:** High biological value protein like Eggs, Fish, Poultry, Meat, Beans and lentils, Nuts and seeds, Tofu, Quinoa. Skinless poultry should make the smallest contribution to the amino acid pool
- **Vitamins & Minerals:** Optimal intake are recommended. There are mounting evidence that vitamins protect against several types of cancer.
- **Fluid:** Sufficient fluids need to be ingested.



WEIGHT AND BREAST CANCER





Skip Empty Calories


Steer clear of alcohol and sweets



Why Does Alcohol Increase Breast Cancer Risk?

- Alcohol has been shown to rapidly increase estrogen levels, which in turn play a role in increased breast cancer incidence.

The Bottom Line

- 
- Steer clear of alcohol and sweets as often as possible, especially if you have a family history of breast cancer.



Get Active!

The role of exercise in breast cancer prevention

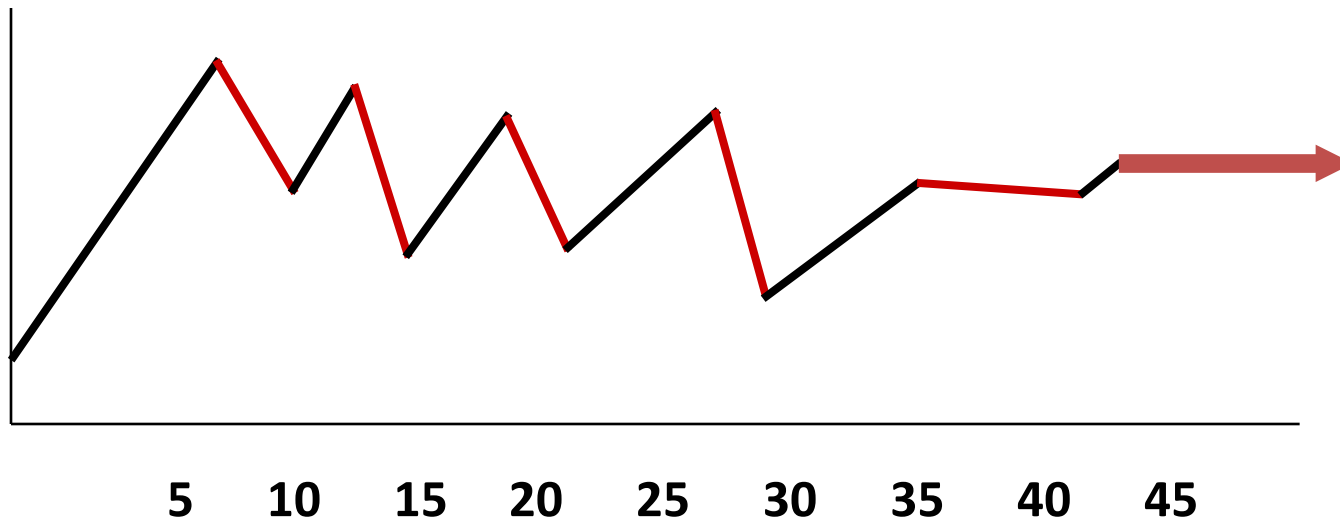
Exercise

- The American Institute for Cancer research recommends that people exercise for 30 minutes every day in order to reduce their cancer risk.

WCRF/AICR, 2007

Lifestyle Change is a Journey

It takes 45 days to change a habit
or incorporate a new one



Live your life as if your health depends on it...
because it does!

Conclusion

- ✓ Abnormal cell growth.
- ✓ Can occur in any body tissue.
- ✓ Treatment: Chemotherapy, radiation, surgery.
- ✓ Parenteral or enteral nutrition may be necessary in the early stages of recovery.
 - ✓ Hypermetabolic state.
 - ✓ Demand high energy & protein.
- ✓ Antioxidants, phytochemicals & probiotics can be preventive.



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THANK YOU