Getting the Best of Nutrition for the Battle against Cancer

Mary Easaw
Chief Dietitian
Institut Jantung Negara, Kuala Lumpur
Content

Good Days and Bad Days
Nutrition Before the treatment
Nutrition During the treatment
Nutrition After the treatment
Guidelines to Caregiver
Recipes
References


Introduction

When you are healthy eating enough food is not a problem

But when you are dealing with cancer & treatment, eating enough is a real challenge
Fighting Cancer Related cachexia

Cancer cachexia affects,
• patients’ mortality,
• surgical risk,
• response to first- & second-line chemo-/radiotherapy,
• & quality of life
Introduction

When you have cancer you need:

- Extra protein & calories
- Add sauces & gravies
- Lower fiber foods

It also depends on the side effects of the cancer treatment
Side effects of treatment & eating problems

Although the treatment is designed to kill the cancer cells but it also damage the healthy cells causing the following:

- Appetite loss
- Changes in sense of taste or smell
- Constipation or diarrhea
- Dry or sore mouth
Side effects of treatment & eating problems

- Nausea or vomiting
- Lactose intolerance
- Sore throat and trouble swallowing
- Weight gain or weight loss
Nutrition Before the Treatment

Until the treatment starts you will not know what side effects or eating problem you may encounter

- If you have mild problems you can manage it & many problems go away when the treatment ends
- If you have severe problem, then it becomes a challenge
Nutrition Before the Treatment

- Treat this as a time to get well & focus just on yourself.
  - *Eat well before the treatment – helps you to stay strong & lowers the risk of infection*
  - *Consult your dentist for a healthy mouth*
Nutrition Before the Treatment

- Consult the doctor, nurse or the dietitian
- Learn about the cancer and its treatment & what to expect
- Discuss fears, worries and coping strategies
Ways to get ready

- Fill your refrigerator or cupboard with foods that you like & easy to prepare even when you are sick
- e.g. ready-to-eat, cereals, supplementary drinks
Ways to get ready

- Cook some foods ahead of time & freeze in meal size portion
- Ask friends or family to shop & cook during treatment
- Check with the nurses or dietitians who can help eating problems
Ways to Get the Best from food

Depends on good & bad days

Eat protein & calories when you can.

- Keeps up the strength & builds back the tissue harmed during treatment
- Eat when you have the biggest appetite e.g. a big meal in the morning & supplementary drinks later on
Ways to get Best from food

- Sticks to the food you can eat even though: 1 or 2 items
- Do not worry if you cannot eat at all some days. Divert attention to some other thing else (> 2 days tell the doctor)
- Drink enough fluids e.g. soymilk, milk, yogurt & milk base shakes
Avoid Infections - Do’s

- Keep foods according to the right temperature
- Store leftovers in the refrigerator
- Thaw meat or chicken or fish in the refrigerator
- Scrub all fruits & vegetables before cooking & eating
Avoid Infections - Do’s

- Wash hands, knives & counter tops before & after food preparation
- Use different chopping boards
- Cook all foods thoroughly (Meats: well done & not pink, eggs: hard not runny)
Avoid Infections – Don’t

Eat raw fish or shell fish
e.g. sushi or uncooked oyster
No unpasteurized liquids
Eat foods past the expiry date
Avoid Infections – Don’t

Careful at buffets, salad bars or self service restaurants
Moldy foods or preserved such as bleu cheese, tempe or tapai, tempoyak, sambal belacan etc. should not be eaten
Vitamins and Supplements

No studies of evidence that can prove that this can cure or delay or prevent recurrence

In fact some of this products may interfere by changing how the cancer treatment works
Nutrition During the Treatment

Not everyone has an eating problem during the treatment.
Nutrition During the Treatment

It depends on

- the type of cancer you have,
- where it is in your body,
- what kind of treatment you have,
- how long the treatment last &
- the doses of treatment you receive.
Feelings during the Treatment

Depressed
Anxious
Afraid/ fear
Angry
Helpless
Alone
Thought of dying
Coping strategies during the treatment

Coping strategies

- Eat favorite foods on good day
- Learn about eating problem & the side effects before treatment starts
- Relax, meditate & pray
Coping strategies during the treatment

Coping strategies

- Talk to 1 or 2 friends whom you trust
- Join a cancer support group
- Get enough rest
- Ask for help if you need
- Be active each day
LOSS OF APPETITE

Various Reasons,
Treatment Modality
Nutrition During the Treatment

Why

• The cancer itself, fatigue, pain, stress, fear,
• depression, side effects of the treatment e.g. nausea, changes in taste or smell

Ways to Manage

• Drink liquids when it is hard to eat (e.g. juice, soup milks & soy based drinks)
• Eat small 5 – 6 meals instead of 3 large meals
Nutrition During the Treatment

Ways to Manage

• Keep snacks handy nearby e.g. biscuits, raisins, buns, nuts
• Changes the texture of foods
• Eat soft cool or frozen foods e.g. ice creams, yogurt or crème caramel
• Consult your doctor, nurse or dietitian
Changes in Sense of Taste or Smell

Taste less flavorful or bitter or metallic no taste at all
### Nutrition During the Treatment

#### Why

- Cancer itself
- Cancer treatment
- Dental problems

#### Ways to Manage

- Marinade foods in marinades and keep in refrigerator until ready to cook
- Try tart foods & drinks such as lime or orange juice, or orange pudding
Nutrition During the Treatment

Ways to Manage

• If you have sore mouth, avoid tart foods
• Keep your mouth clean.
• Make food sweeter
• Add extra flavour to your foods, e.g. crushed *ikan bilis* & tamarind
Nutrition During the Treatment

Ways to Manage

- Avoid foods and drinks with smell that bothers you
- Served foods at room temperature, covered
- Drink through the straw
Nutrition During the Treatment

<table>
<thead>
<tr>
<th>Ways to Manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cooking: use a kitchen fan or cook outdoors and lift the lids away from you</td>
</tr>
<tr>
<td>• Eating: Use plastic / ceramic spoons / chopsticks</td>
</tr>
<tr>
<td>• Problem persist: Consult the doctor or dietitian</td>
</tr>
</tbody>
</table>
Constipation

(Bowel movements are less frequent and stools become hard, dry or difficult to pass – painful bowel movements bloating & cramps)
Anti-Cancer Superfruits

Blueberries
Goji Berries
Dragon Fruit
Acai Berries
Citrus
Pomegranate
Grapes
Avocado
Mangosteen
Noni
Soursop
Apple
Strawberries
Kiwi
## Nutrition During the Treatment

### Why

- Chemo
- Location of cancer,
- Pain
- Medication
- Inactive

### Ways to Manage

- Drink hot liquids regularly which can relieve constipation even after meals
- Try more vegetables & fruits
- Talk to your doctor before taking any laxatives or stool softener or any medications
- Record your bowel movements
Diarrhea

(Frequent bowel movements soft, loose or watery causing dehydration)
# Nutrition During the Treatment

<table>
<thead>
<tr>
<th>Why</th>
<th>Ways to Manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chemo, radiation biology therapy</td>
<td>• Drink isotonic drinks after fizzing them out</td>
</tr>
<tr>
<td>• Damages the healthy cell lining of both the intestines</td>
<td>• Eat smaller meals</td>
</tr>
<tr>
<td></td>
<td>• Eat foods rich in potassium and sodium (bananas,</td>
</tr>
<tr>
<td></td>
<td>boiled sweet potatoes)</td>
</tr>
<tr>
<td></td>
<td>• Eat low fiber foods as high fiber foods can worsen the</td>
</tr>
<tr>
<td></td>
<td>diarrhea</td>
</tr>
</tbody>
</table>
Nutrition During the Treatment

**Ways to Manage**

- Avoid gassy foods, refine sugar, wholegrain, spicy foods, caffeine & apple juice & full cream milk unless lactose free

- Sugar free products with sorbitol or xylitol

- Drink clear fluids 12 – 14 hours after the sudden attack of diarrhea as this allows your bowels to rest & replace the fluids
Sore mouth
Sore throat & trouble swallowing

(Sit upright and bend your head slightly forward)
### Nutrition During the Treatment

<table>
<thead>
<tr>
<th>Why</th>
<th>Ways to Manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation causes little cuts or ulcers in the mouth</td>
<td>• Choose food that are easy to chew &amp; swallow</td>
</tr>
<tr>
<td>Dental /mouth problems infections</td>
<td>• Soft foods such as pudding, blended porridge, puree fruits</td>
</tr>
<tr>
<td>Burning sensation</td>
<td>• Eat cold or room temp. foods as hot foods will hurt the mouth</td>
</tr>
<tr>
<td></td>
<td>• Add sauces to food and mix well before you eat</td>
</tr>
</tbody>
</table>
## Nutrition During the Treatment

### Ways to Manage

- Suck ice cubes which may help numb and soothe the mouth

- Rinsed mouth with $\frac{1}{4}$ tsp. baking soda, $\frac{1}{8}$ tsp. salt & 1 cup warm water 3-4 x daily

- Drink supplementary liquids frequently
Nutrition During the Treatment

Ways to Manage

Avoid the following:

- Citrus fruits
- Tomatoes & ketchup
- Salty foods
- Raw vegetables
- Spicy foods
- Crunchy foods
- Tobacco or alcohol
Nutrition After Treatment

- Eating problems resolved after treatment
- Weight loss & changes in smell may last longer
- Head & neck cancer or removal of stomach or intestines
Eat well after the Treatment

- Enjoy a variety of foods
- Take easy-to-make & chew foods
- Enjoy fruits & vegetables
- Vary the carbohydrates in diet
Eat well after the Treatment

- Eat small portions
- Refrain from processed & preserved foods
- Exercise regularly
- Consult a dietitian
Special note to Caregivers

- Be prepared: Taste buds changes daily
- Keep food within easy reach
- Offer gentle support – not pushy
- Talk about ways to manage eating problems
RECIPES

1. Banana Milkshake - to Help with Appetite Loss

2. Apple/Prune Sauce - to Help Relieve Constipation

3. Fruit and Cream - to Help with a Sore Mouth

4. High protein Milk shake – to help with weight loss
Banana Milkshake - to Help with Appetite Loss

Ingredients:
1 whole ripe banana, sliced
Vanilla extract (a few drops)
1 cup cold milk

Method
Blend all the ingredients in a blender and serve immediately

<table>
<thead>
<tr>
<th>Serving size approx. 2 cups (1 serving)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
</tr>
<tr>
<td>Whole milk</td>
</tr>
<tr>
<td>2% milk</td>
</tr>
<tr>
<td>Skim milk</td>
</tr>
</tbody>
</table>
Apple/Prune Sauce - to Help Relieve Constipation

**Ingredients:**
1/3 cup unprocessed bran
1/3 cup applesauce
1/3 cup mashed stewed prunes

**Method:**
Blend all ingredients and store in a refrigerator.

Take 1-2 tablespoons of this mixture before bedtime, then drink 8 ounces of water.

**Note:** Make sure you drink the water, or else this recipe will not work to relieve constipation.

**Yields 16 serving**
Serving size: 1 Tabs
1 serving = 10 calories
Fruit and Cream - to Help with a Sore Mouth

**Ingredients:**
1 cup whole milk
1 cup vanilla ice cream or frozen yogurt
1 cup canned fruit (peaches, apricots, pears) in heavy syrup with juice
Almond or vanilla extract to taste

**Method:**
Blend ingredients in a blender and chill well before serving

| Serving size approx. 1 ½ cups (Yields 2 serving) |
|------------------------------|-------|-----|
| **Product**                  | **Calories** | **Protein (g)** |
| With ice cream               | 302   | 7   |
| With yogurt                  | 268   | 9   |
High Protein Milk Shake – to help with a Weight Loss

**Ingredients**
1 cup protein-fortified milk
2 tablespoons butterscotch sauce, chocolate sauce, or your favorite fruit syrup or sauce
1/2 cup ice cream
1/2 teaspoon vanilla extract

**Method**
Put all ingredients in a blender.

<table>
<thead>
<tr>
<th>Serving size approx. 1 1/2 cups (Yields 1 serving)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>Milk shake</td>
</tr>
</tbody>
</table>
Thank You

Any questions or feedback?
Cancer Information Services: Malaysia

National Cancer Society, Malaysia
(www.cancer.org.my)
Breast Cancer Welfare Association
(www.breastcancer.org.my)
MAKNA
(www.makna.org.my)
HOSPSIS
(www.hospismalaysia.org.my)
Cancer Information Services

- National Cancer Institute (http://www.cancer.gov)
- American Dietetic Association (http://www.eatright.org)
- American Institute for Cancer Research (http://www.aicr.org)