
Nutrition and Pediatric Oncology



Healthy Eating Tip of the Month

August 2020

What is cancer?

Cancer is a disease caused by uncontrolled division of abnormal cells in a part or in parts of the body.

What is nutrition?

Nutrition is the process of food being taken into the body and the body using it to grow, to keep the body healthy, and to heal or replace tissue.

What is malnutrition?

Malnutrition refers to getting too little or too much of certain nutrients.

Individuals with cancer are at higher risk for developing malnutrition because both the disease itself and treatment therapies threaten nutritional status.

What are benefits of good nutrition before, during, and after cancer treatment in children?

1. Reduced risk of infection during treatment
2. Better tolerance of treatment and its side effects
3. Maintenance of normal growth and development
4. Maintenance of weight and the body's nutrient stores
5. Increased quality of life
6. Quicker recovery and healing

Nutrients of Importance for Your Growing, Healing Child

1 Calories

Why are Calories important?

Calories help the body grow, heal, and prevent weight loss.

Cancer and Calorie Needs

Much like with protein, cancer often increases a child's calories needs.

High-Calorie Food Examples:

Peanut butter and nut butters, nuts, seeds, eggs, cheese, milkshakes, avocado

2 Protein

Why is Protein important?

A regular supply of protein allows the body to repair itself; to grow; and to maintain healthy skin, blood cells, a healthy immune system, and healthy digestive tract lining.

Cancer and Protein Needs

Cancer often increases a child's protein needs because in addition to maintain normal growth, the body needs to repair and heal itself.

Sources of Protein:

Poultry, lean red meat, dairy products, nuts, nut butter, beans, peas, lentils, and soy products

3 Calcium and Vitamin D

Why is Calcium important?

Children and adolescents need calcium to grow and strengthen their bones and to keep muscles and nerves working properly.



Why is Vitamin D important?

Vitamin D helps with the body's absorption of calcium and works to maintain the normal blood levels of calcium.

Age (years)	Recommended Daily Calcium (milligrams)
1-3	500 mg
4-8	800 mg
9-18	1,300 mg

Age	Recommended Daily Vitamin D (International Units)
0-12 months	400 IU
1-18 years	600 IU

Sources of Calcium:

Dairy products (milk, cheese, yogurt), broccoli, cabbage, okra, bread (and other products made with fortified flour). nuts. and tofu

Fun Fact: Almost half of the body's bones form during teenage years.

Sources of Vitamin D

Fatty fish (i.e. salmon and tuna), egg yolk, mushrooms, fortified drinks (i.e. milk or orange juice)

* Some treatments and medications can influence calcium needs. Talk to your child's doctor about their daily calcium needs.

Cancer and Nutrition Myths Debunked

Myth: Sugar feeds cancer.

Truth: Excessive sugar intake over time, along with other factors, can contribute to obesity, which is a risk factor for developing cancer.

- Carbohydrates (i.e. sugar) are our main source of energy.
 - All sugars are broken down to their simplest form (glucose) to feed every cell in the body.
 - Even if you cut sugar from your child's diet, there is no current clear evidence this will starve pediatric cancers.
 - It is currently recommended children continue to eat complex carbohydrates (whole grains, fruits, vegetables, beans) for normal growth and development.
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Myth: An alkaline diet prevents cancer and stops existing cancer from growing.

Truth: No evidence supports this claim, and following this diet can cause harm.

- This diet is rich in fruits and vegetables and limited in protein sources (such as meat, poultry, eggs, and dairy). **The restrictive nature of this diet can cause nutritional deficiencies by not consuming enough protein, calories, calcium, iron, vitamin D, vitamin B12.**
 - Supporters of this diet claim acidic foods cause the body to become more acidic, & this acidic environment increases risk of cancer.
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Myth: A strict paleo diet prevents cancer.

Truth: Strict adherence to this diet removes food groups proven to help prevent cancer, decrease cancer mortality, and improve general health.

- This diet attempts to replicate the diet of Stone-Age humans. It focuses on fruits, vegetables, nuts, meat, and eggs while excluding grains, legumes, dairy, and all processed foods.
- **Legumes and grains are proven to help prevent cancer, decrease cancer mortality, and improve general health.**

Summary: Restrictive diets should be avoided in children whenever possible. Children need a wide variety of nutrients to grow and develop. Childhood is a key time for the development of one's relationship with food. Labeling foods as "bad" or as foods to be restricted may cause your child to feel shame for eating or desiring these foods. Encourage your child to eat a balanced diet which incorporates various food groups and supplies them with enough nutrients to grow and develop.

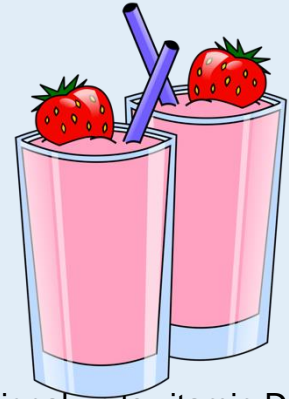
Strawberry Banana Cream Shake

1 cup whole milk
1 cup strawberry ice cream
3 packages of vanilla Carnation Breakfast Essentials Powder Drink Mix
2 small bananas

Blend Until Smooth

Yields: 4 Servings

Per Serving: 277 calories, 6 grams protein, ~186 mg calcium, ~32 international units vitamin D



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