

Let's Talk About...

Cancer Treatment and Nutrition

When a child is fighting cancer, good nutrition is an important part of treatment. Eating the right kinds of foods before, during, and after treatment can help your child tolerate treatment better and give her more strength for recovery and healing. Good nutrition is also important during the growing stages of childhood. Nutrition and medication intervention may be needed to provide growth and nutrition to keep your child healthy.

Before cancer treatment

Even if cancer treatment has not yet begun, your child should start eating as well as she can right away. Make sure her diet includes plenty of calories and protein. Following the recommendations on the Food Guide Pyramid is a good way to do this. Good nutrition will help your child:

- Build extra strength for healing
- Prevent body tissue from breaking down
- Fight off infection
- Cope with higher doses of cancer treatment

During cancer treatment

Many cancer treatments are designed to kill cancer cells, but they may also damage healthy cells. The damaged healthy cells can lead to side effects that affect growth and appetite. Treatments can also affect the body's ability to fight illness. This is called immunosuppression (im-you-no-sue-PRESH-un).

- Follow special food-handling guidelines. Because your child's immune response is weaker than usual, you must be extra careful about germs. The end of this LTA explains safe ways to store and prepare food to prevent exposure to germs. Please share these guidelines with anyone who may prepare or bring you food.

- Choose foods wisely. Continue to eat plenty of calories and protein. It is important to continue normal eating habits for your child as much as possible. If your child has lost weight or has a decrease in appetite, adding extra calories to food your child enjoys is a start. Other high calorie and high protein liquid supplements are also helpful. If you need more information on about increasing calorie and protein intake ask your dietitian for ideas.
- Manage side effects. Your child may have side effects that make her not want to eat. Managing common side effects, below, for more details on what your child should eat when she is not feeling well.
- Stay in touch with a registered dietitian. A dietitian can answer questions and provide suggestions for your child's eating problems.

After cancer treatment

After your child's treatment is over, return to traditional guidelines for healthy eating. Your child should eat a variety of foods, and go easy on saturated animal fat, salt, and sugar. A safe, healthy diet will help your child regain her strength, rebuild tissue, and feel better.

Dietitian: _____

Phone: _____

To find a registered dietitian (RD) at Intermountain Healthcare, go to intermountainhealthcare.org/RD.

Nutritional ways to manage common side effects

When your child feels side effects from treatment, these ideas can help you find something she can eat:

Anorexia (loss of appetite)

- Feed your child the foods she likes the most.
- Feed your child 6 small meals throughout the day, including a snack at bedtime, rather than 3 larger meals.
- “Power pack” your child’s food by adding butter, cheese, or other high-calorie ingredients.
- Feed your child high-calorie, high-protein supplements such as Carnation® Instant Breakfast® or Ensure®.
- Feed your child soft, cool, or frozen foods.
- Have your child eat as much as she can when she’s feeling well.
- Avoid arguing, nagging, or punishing a child who is unwilling to eat. Get her involved (shopping, cooking, setting table). Enjoy the good times.
- Have your child take a walk before meals. Mild exercise can make your child hungry.
- Ask your dietitian about appetite stimulants. This will only be considered if nutrition intervention is unsuccessful. It may be better for your child to receive nutrition by tube or by IV.

Changes in taste and smell

- Avoid foods with strong odors.
- Don’t give up on foods. What tastes “off” today may taste normal next week.
- Add seasonings, flavorings, or sauces.
- Feed your child foods cold or at room temperature.
- Use plastic utensils and dishes.
- Add sugar to decrease the flavor of salty food.
- Add salt to decrease the sweetness of sugary food.
- Try frozen fruit, fresh vegetables, or marinated meats (red meats may be bitter).
- Rinse mouth and brush regularly.

Dry mouth

- Have your child drink 8 to 12 cups of liquid daily.
- Add sauces, gravies, or salad dressings to foods.

- Stimulate saliva with sweet or tart foods and drinks, or by sucking on hard candy or chewing gum. (But don’t try this if your child has a sore mouth or throat.)
- Take small bites and chew well.
- Give soft, moist foods at room temperature. Use a blender to mix fruits and veggies or cook them so they are soft.
- Use a cool mist humidifier to moisten room air, especially at night. Be sure to keep the humidifier clean to avoid spreading bacteria or mold in the air.
- Keep your child’s lips moist with lip balm.

Sore mouth and throat

- Avoid foods or liquids that irritate your child’s mouth such as citrus or spicy.
- Have your child drink through a straw.
- Serve your child soft or pureed foods.
- Serve food cold or at room temperature.
- Have your child rinse her mouth often with water.

Vomiting

- Limit your child’s eating or drinking until her vomiting is under control.
- Start with small amounts of clear liquids, and add other foods slowly to see how your child tolerates them.
- If your child vomits, encourage tooth brushing or rinsing out her mouth before trying more food.

Nausea

- Feed your child bland foods that are easy on her stomach (crackers, toast, yogurt). Avoid foods that are fatty, very sweet, spicy, or have strong odors.
- Have your child eat slowly.
- Have your child rest, sitting up, one hour after meals.
- Have your child eat 6 small meals a day instead of 3 larger meals.

- Don't have your child drink liquid with meals, only between meals. Have her slowly sip liquids all day so she doesn't get dehydrated.
- If smell is causing nausea, try covering drinks and drink through a straw or eat foods that don't require cooking.
- Don't have your child eat in a room that is stuffy or warm. Provide a quiet and relaxed atmosphere.
- Talk with your child's doctor about medication to control nausea.

Diarrhea and cramping

- Have your child drink plenty of fluids to replace loss.
- Use fewer dairy products. If this helps, ask your child's dietitian for more ideas on lactose-free eating.
- Serve your child foods that contain pectin, such as applesauce, oatmeal, and peeled fruits and vegetables.
- Serve your child foods high in potassium and sodium, such as bananas, juice, fresh fruits and vegetables, and potatoes, as tolerated.
- Have your child avoid caffeinated drinks like coffee and soda. Have your child avoid chewing gum.
- Infants are more vulnerable to dehydration. If your child has persistent vomiting and diarrhea, report this to your child's doctor.

Weight loss and muscle wasting

- "Power pack" your child's food by adding butter, cheese, whole milk, or other high-calorie ingredients. Try Carnation® Instant Breakfast®, Pediasure®, or Nutren® Jr.
- Have your child drink more liquids.
- Have your child eat more fiber.

Constipation

- Have your child drink warm drinks (make sure they are not too hot).
- Have your child drink more liquids.
- Feed your child more fiber in her diet.

Steroid-Induced Hunger

- Limit foods to scheduled meals.
- Offer water more than juice or soda.

Other Nutrition Intervention

- Even if you offer high-calorie and high-protein foods your child may have trouble eating enough. Tube feedings may be necessary to help provide your child with enough nutrition or to prevent malnutrition. These types of feedings can give 100% calorie, protein, vitamin, and fluid if needed. If your child needs a feeding tube, every effort will be made to allow her to eat by mouth. For example, she may receive tube feedings at night while she sleeps so she can eat during the day.

Food-handling guidelines for preventing infection

While your child receives cancer treatment her immune system is weak. The immune system helps the body fight infection and stay healthy. These guidelines can keep your child safe from germs that could make her sick. This is especially important while the immune system is weak and blood counts are low. This may be during her hospital stay and at first when she goes home while waiting for count recovery.

Eating away from home

In the hospital while counts are low

The body isn't able to fight infections, and food-borne illnesses can be a problem. Food should remain in the hospital room for no more than 45 minutes. Once your child's blood counts are stable or she goes home from the hospital, follow the guidelines below.

Eating out when at home

Choose restaurants you know are clean. Ask to have foods freshly prepared (for example preparing a hamburger after you order it rather than giving you one from under the heat lamp). Ask for single-serving condiments (for example, single serving packets of ketchup, mustard, mayonnaise). Use best judgment to make sure an infection is being prevented.

Shopping for food

Get cold foods home and into the freezer quickly. Don't buy food past the "use-by" date on the label. Don't buy spoiled food, dented cans, containers with cracked lids, or delicatessen foods.

Preparing food at home

Keep foods at a safe temperature. Cook hot food thoroughly. If you're not going to eat right away, refrigerate food immediately. Keep cold foods cold. Some foods spoil especially fast. Don't leave these foods at room temperature longer than 1 hour: Milk and dairy products, eggs (unless they're pasteurized), all types of meat and fish, baked potatoes, tofu and other soy proteins, sprouts and sprout seeds, cut melons or tomatoes, garlic and oil mixtures, and cooked rice, beans, or vegetables.

Make sure your food is still good. Don't eat spoiled or moldy foods. Don't eat foods containing raw or unpasteurized ingredients. Don't use eggs that have cracked before use. Don't refreeze defrosted foods. Don't taste anything that looks or smells strange. Always prepare food in a clean area. Don't cut cooked foods on the same surface as raw foods. Don't use a wooden cutting board. Wash tops of cans before opening.

Storing food

Store foods in tightly sealed, covered containers. Freeze foods in freezer bags, or in clear airtight containers. Discard foods that have passed their expiration date. Throw out refrigerated leftovers after 3 days. Throw out foods with freezer burn. If you buy food in large economy sizes, divide it into serving sizes and seal it in new food storage bags. Rotate stored food to use the oldest food first.

Recommended storage temperatures:

- On the self: 50–70 degrees
- In the refrigerator: 34–40 degrees
- Freezer: less than 5 degrees

Storage time limits for frozen foods	
Bakery goods and breads	2 months
Prepared foods containing meat broths or gravies	2–3 months
Prepared meat dishes	3–4 months
Uncooked pork	4–6 months
Other meats, uncooked	6–12 months
Vegetables	6–9 months

Cleaning up

Keep your food preparation areas clean. Clean and sanitize all of these often: counter tops, cutting boards, eating surfaces, dishcloths and towels, can openers, and food processor blades. Keep surfaces, appliances, and storage areas free of food particles and spills.

Wash your hands with soap and dry thoroughly. Always wash your hands before handling food and during food preparation.

Use the hottest cycle on the dishwasher. If hand washing, sanitize dishes with the sanitizing solution or use warm water and dish detergent, then air dry.