



Research • Educate • Support

- & -



CANSA TLC – CANSA’s Tough Living With Cancer (TLC) Children’s Support Programme

Understanding a Child’s Dietary Needs When They’re Diagnosed With Cancer

A Guide For Supportive Nutritional Care During Treatment

Disclaimer - This Booklet is a guide and should not be considered as a substitute for advice given by your registered healthcare professional.

CANSA edited some of the content, and the Together by St. Jude™ online resource provided additional information.

We acknowledge Judy Schoeman, Paediatric Oncology Dietitian and Megan Pentz-Kluyts, Registered Dietitian for their contribution to this booklet.

The mention of any branded product in this booklet does not mean endorsement by its contributors.



Research • Educate • Support



CORRECT CARE WILL HELP CHILDREN COPE WITH TREATMENT & SIDE EFFECTS

Nutritional care is essential for the success of a paediatric (or adult!) oncology treatment protocol.

Cancer is not easy. The side effects can be truly awful - and this is where you come in. As a parent or caregiver, you have the unique opportunity to provide nutritional support to the child in your care during this difficult time. This guide is designed to help you understand the side effects that children experience during cancer treatment, and we've packed it full of tips and tricks to aid you in the journey ahead.

Information kindly provided by the *Together by St. Jude™* online resource. To learn more, please visit together.stjude.org

HOW TO MANAGE NAUSEA & VOMITING

What is Nausea?

Nausea is the feeling of sickness or discomfort that a person associates with the urge to vomit. Nausea is subjective, meaning that it depends on the person's own experience. Nausea usually involves unpleasant sensations in the throat, oesophagus, or stomach. Other sensations a person may relate to nausea are dizziness, trouble swallowing, sweating, and feeling chilled or flushed.

What is Vomiting?

Vomiting, or throwing up, occurs due to the action of the diaphragm and abdominal muscles. These muscles contract and push stomach contents up the oesophagus and out the mouth. This is regulated by nerves that respond to certain triggers. Common triggers for nausea and vomiting are viruses and bacteria, motion, and physical or chemical signals. These activate nerve pathways that control the vomiting reflex.



Nausea and vomiting are related, but each may occur without the other.

Up to 70% of children who get chemotherapy will experience nausea at some point during treatment. Symptoms vary from mild stomach upset to severe vomiting. There are 3 types of nausea and vomiting (emesis) associated with chemotherapy:

1. Acute Emesis – occurs during the first 24 hours after chemotherapy. It usually begins 1-2 hours after chemotherapy and starts to get better after 4-6 hours.
2. Delayed Emesis – develops after 24 hours. Usually, delayed emesis is most severe 48-72 hours after chemotherapy and then gets better over the next few days.
3. Anticipatory Emesis – develops before chemotherapy and is brought on by triggers that the person associates with chemotherapy. This is a learned response and is most common in patients who had episodes of severe nausea and vomiting with past treatments.

Children receiving chemotherapy with high or moderate risk of vomiting are usually given medicines to prevent nausea and vomiting before symptoms occur.



What can you do to help?

Firstly, increase their fluid intake. Children and teenagers with cancer need to stay hydrated, especially when they're nauseous and have little to no appetite. Drinking a variety of fluids throughout the day helps combat the effect of strong medications on the body, and eases nausea and vomiting.

We recommend the following options:

- water
- clear apple juice (juices with segments increase nausea)
- rooibos or normal tea
- carbonated drinks like sparkling water (flavoured or plain) and Sprite



Sucking ice cubes is a simple way to help manage nausea and increase fluid intake. These can be enjoyed throughout the day as needed. Try Freezing apple juice in ice cube trays as another option

Ginger is a winner! From teas, extracts and juices with ginger and lemon, to lozenges, ginger beer and supplements - almost any form of ginger is an excellent solution for tackling nausea.

We recommend at least 6 - 8 glasses of fluid a day. The older the child and the more they weigh, the more they should be drinking. Ask your dietitian to help determine how much fluid your child or teen requires.

Information kindly provided by the *Together by St. Jude™* online resource. To learn more, please visit together.stjude.org

TIPS & TRICKS FOR RELIEVING NAUSEA

Changes in Diet to Help with Nausea

Certain foods and smells may make nausea worse. Many patients lose their appetite during cancer treatment. Children can be very different in what they are able to eat when they don't feel well. It may take some trial and error to find what works best.

Some general tips are:

- Eat small snacks and meals.
- Eat and drink slowly.
- Avoid having liquids with meals.
- Offer dry, bland foods such as crackers or toast.
- Avoid spicy, acidic, or rich foods.
- Eat in a place that does not have strong smells.
- Allow the child to choose when and what to eat.



TRIED AND TESTED CANSA TLC GUIDELINES

- Offer the child dry, bland foods such as cream crackers, toast, potato, maize meal, rice, pasta, sweet potato and pumpkin
- Try to avoid very milky, oily or fatty foods as these may increase nausea.
- Encourage them to eat smaller, more regular meals, rather than 3 large meals. Use a small side plate to guide you.
- Always have some snacks packed and ready for easy access in the fridge, or to grab and go when you are not at home.
- Do not let them drink any fluids with meals; rather, they should drink in between meals
- Invite them to eat in a relaxed atmosphere without the TV on, or - even better - sit outside on the stoep or in the garden for mealtimes. A calm space can make it easier for children or teenagers to eat, especially if they are overwhelmed and struggling with nausea
- Allow a child to choose when and what to eat.
- Offer them cold fluids with ice - these are comforting and refreshing.
- Do not offer a child their favourite food when they're feeling nauseous. This food may become associated with feeling sick.
- Try giving them chewing gum or soft candy, popsicles, or ice to suck on.
- Get them to avoid lying down flat after meals.
- Make sure to remind them to rinse their mouth after vomiting. Stomach acid can cause mouth irritation and tooth decay and leave a terrible taste in their mouth. Salt water is a good option or various mouth washes.

WHAT IS DIARRHOEA?

Diarrhoea is characterised by:

- Loose stools, bowel movements or a “runny pooh”
- Going to the toilet more than usual

It’s important for a child to have normal, regular bowel movements. When a child has diarrhoea, they will go to the toilet more often than what is normal, and their stools will be more liquid than they should be. Sometimes diarrhoea also comes with stomach cramps, nausea and vomiting.

So, how do you know if a child has diarrhoea?

Ask them:

- Have you had a pooh today?
- What was it like? normal or runny?
- Was it sore and have you gone to the toilet more than usual?

If they have tried a new medication or treatment, be aware that diarrhoea can be one of the side effects. If it does not subside, please consult with your doctor.



EFFECTS OF DIARRHOEA

Diarrhoea causes discomfort, and in severe situations - if it goes on for too many days in a row, for example - decreases quality of life.

Diarrhoea also results in:

- Dehydration
- Loss of nutrients
- Increased risk of infections

Diarrhoea is a serious symptom and must not be left untreated. Rather act sooner than later, prevention is better than cure. Luckily, there are many simple ways to treat diarrhoea and ease its symptoms.



FLUID INTAKE

Get the child to drink $\frac{1}{2}$ a glass (or a full glass if they can) of diluted apple juice or energy drink (Powerade or Energade, for example).

If possible, make your own Oral Rehydration Drink (ORT) to give them after each loose bowel movement.

Mix 1 litre of water (boiled and then cooled) + 8 teaspoons sugar + $\frac{1}{2}$ teaspoon salt.

They should:

- drink fluid at room temperature
- NOT drink fluid with meals

FOODS FOR CHILDREN TO EAT DURING CHALLENGES WITH DIARRHOEA

- Increase their intake of cooked vegetables, rice, pasta, oats or maize meal porridge.
- Feed them foods that are good sources of soluble fibre, such as potatoes, fruit, and barley soup - these can help to reduce diarrhoea.
- Try to offer a mixture of peeled or grated apple, banana pulp, grated carrot or paw-paw – the ABC diet!
- Or offer the BRAT diet: bananas, rice, applesauce and toast. Limit this diet to only for a few days, as it is too low in some nutrients.
- Choose high-fibre foods wisely: soluble fibre found in oats, oat-based cereals, applesauce, bananas, and the inside of apples, pears, and peaches can help to firm up loose stools.
- Avoid serving them insoluble fibre found in leafy greens, fruit/vegetable peels, skins and seeds - as these could make diarrhoea and cramping worse.
- Avoid offering carbonated drinks, beans, cabbage, cauliflower, and broccoli if a child is experiencing stomach cramps.

On that note, let's talk about more foods to limit or avoid:

- Beverages containing caffeine e.g., coffee (always check labels)
- Milk and dairy products, opt for lactose free versions
- Juice and sugary drinks
- Foods that are spicy or high in fat and/or sugar
- Foods that are very hot or very cold

And here are a few great habits to enforce with children:

- Get them to drink plenty of liquids
- Serve smaller meals
- Choose mild foods that are easy on their stomachs
- Encourage them to eat slowly and chew food well



WHAT IS CONSTIPATION?

Constipation is caused by the hardening of stools, and therefore a decrease in the amount of stools usually passed. It is the need to go to the toilet but the “pooh” won’t come out.

The experience of constipation differs from person to person - it could mean less stools per week, no stools for a few days, small stools each day, or experiencing pain when passing stools.

Children might hold back from going to the toilet because of the painful, frustrating experience of constipation.

Suggestions to help a child ease their constipation:

- Drink plenty of liquids, and try warm beverages
- Drink beverages containing caffeine, including coffee, tea, and cola
- Drink a hot beverage or eat hot cereal first thing in the morning
- Increase intake of foods with fibre such as fruits, vegetables, and whole grains
- Eat whole grain breads and cereals (read food labels and look for choices with 100% whole wheat, rye, oats, or bran as the first or second ingredient on the ingredient list)
- Eat brown or wild rice instead of white rice or potatoes
- Eat baked goods made with whole wheat flour (you can use it to replace some white or all purpose flour in recipes)
- Eat baked beans more often
- Eat dried beans and peas added to casseroles or soups or as hummus
- Choose whole fresh fruit and vegetables with the peels/skins on instead of as juices
- Eat snacks of dried fruit such as prunes, raisins or cranberries, seeds, popcorn and home snack bars high in oats and dried fruit.
- Increase physical activity



ASK THE CHILD...

...about the severity of their constipation.

- Frequency - how often are they able to pass some pooh?
language barrier - they can go to the toilet many times not passing a stool
- Type - what do their pooh look like?
- Duration - how long have they been struggling with constipation?

Take note of what medications they are on - morphine, for example, can increase constipation.

The child may need intervention by a registered dietician. Children may not receive suppositories without consulting the paediatric oncologist.

Please note: Always read the nutritional info on food labels.

If there is more than 2.4g of dietary fibre per 100g, the food item is a source of fibre.

KIDS WITH CONSTIPATION SHOULD:

- Increase their consumption of clean, safe water (no soft drinks or other liquids)
- Eat biscuits such as Provitas/bran biscuits
- Eat plenty of stewed prunes and drink prune juice
- Suggestion: add digestive bran to their food, e.g., porridge, yoghurt, mince, and stews (start with a $\frac{1}{4}$ teaspoon of bran per day and increase gradually to max 3 tablespoons) - (speak to your dietitian regarding your child's fibre requirements)
- Try to do light exercise (like walking) daily for 5 minutes. They can increase to 20 minutes as their strength improves

HELPING CHILDREN STIMULATE THEIR APPETITES

As we've seen throughout this guide, many children have trouble eating and meeting their nutrition goals while struggling with cancer treatment. Problems with eating and getting sufficient nutrition can result in:

- Weight loss
- Delayed growth
- Feeling tired or irritable
- Getting sick more easily
- Weakness and lack of energy for physical activity

Children who have tumours of the mouth, stomach, or intestines are at a higher risk of not getting enough nutrients, because they have trouble eating or digesting food. Changes in routine, meal restrictions during hospital stays or medical treatments can all interfere with normal eating patterns, too. Children may also have decreased appetite due to pain, stress, worry, and lack of physical activity. For many children, treatment side-effects make it hard to meet nutrition goals. For example, treatments can cause painful sores to develop along the mouth and throat. The taste and smell of foods can also change, and even favourite foods may no longer be appealing. No matter what, some children may have trouble maintaining an appetite during cancer. Some general strategies to improve nutrition include:

- Eat six times a day – three meals and three healthy snacks.
- Power pack meals – offer the high fat version of food or add extra oils (like Canola seed oil), milk powder, peanut butter, cheese, gravy, or sauce to foods to make each bite count.
- Maintain variety – offer a variety of foods from all food groups according to dietary guidelines.

ADDRESSING POOR APPETITE

- Appetite is usually better in the mornings - make use of this by offering your child their main meal early in the day
- Allow them to eat smaller and more regular meals and snacks
- Adjust the size of meals to their appetite, and encourage your child to eat when they're feeling good
- Try to get them to eat at each mealtime, even if it's only a few bites
- Offer them milk or a milkshake with added yoghurt and/or a small amount of ice cream - but only between treatments, as milk during chemo can increase nausea and vomiting
- Get them to sip on smoothies and soups
- Try new foods and seasonings that are healthy - avoid artificial carcinogenic products
- Give them foods with extra calories such as ice cream, stuffed potatoes, or casseroles
- Start with small portions and increase gradually
- Give them plastic utensils if food tastes like metal.
- Set reminders for them to eat
- Allow them to eat favourite foods at any time of the day. For example, let them eat breakfast for dinner, if that's what sounds good!
- Keep snacks close by and have them with you wherever you go. Sometimes the moments of hunger are short, so there isn't time to prepare something, you just need something ready to go when they are hungry.
- Limit liquids during meals to allow more room for food

HERE ARE A FEW SUGGESTIONS OF THINGS A CHILD CAN DO TO STIMULATE THEIR APPETITE:

- Wash their face before meals
- Rinse their mouth with water
- Do light exercises before meals (like a walk, some dancing, or just having fun together)
- Eat peppermints, sugar-free gum and dark chocolate (age dependent)
- Enjoy meals in a relaxed atmosphere with friends or family
- Sip on clear apple juice
- Eat food that looks attractive and appetising
- Eat slowly and chew well
- Speak to your dietitian regarding your child's nutrient requirements



HOW PARENTS CAN SUPPORT NUTRITION GOALS

Help children plan eating around times when they are feeling better.

During pediatric cancer, eating habits can change unexpectedly. It can be easy for meal times to become stressful for families. These reminders can help families in meeting nutrition needs.

- Encourage children to eat well when feeling well. Many patients find that the desire to eat changes at different points during a cycle of treatment. Parents can help children plan eating around times when they are feeling better.
- Lean on favourite foods and drinks. This is particularly important when a child is too sick to eat or drink much.
- Don't be pushy. Gently remind patients when it's time to eat. Trying to force children to eat can cause children to resist more. Trying to "win" a battle over food can also cause more stress on families.
- Be flexible. Offer choices, follow cravings, and don't get stuck on having to follow a "normal" schedule.
- Maintain routine. Like flexibility, routine is also important. Eating is a bonding interaction for most families. Continue family meal traditions even if the child is eats something different or nothing at all.

To support nutrition goals during paediatric cancer, try to be flexible during meal times. Offer choices, follow cravings, and don't get stuck on having to follow a "normal" schedule.



NUTRITIONAL SUPPLEMENTS:

Nutritional supplements or meal replacements may be used if the child has trouble meeting nutrition needs through foods. These are usually liquid meal replacements and are available in a variety of flavours. Talk to the child's care team when poor eating continues for more than two or three days. Be sure to ask before using any supplements or meal replacements. Your care team may suggest help from a nutrition professional. In some cases, clinical nutrition support may be needed.



WEIGHT GAIN & MALNUTRITION:

Although weight loss and malnutrition are a main concern for many families, children may also gain weight during cancer treatment. Increased inactivity and fewer opportunities to exercise may be a cause. Or it may be due to eating more high-calorie, high-fat foods.

Some medications, such as steroids, can cause weight gain. This is because steroids increase the appetite, cause the body to make fat instead of muscle, and cause the body to retain water.

Talk with the child's care team to decide the best course of action about weight gain.

Tips to help with weight gain includes:

- Eat more fruits and vegetables.
- Cut back on high fat, high calorie foods. Choose:
 - Low-fat or skim dairy products
 - "Light" and fat-free products
 - Lean meats
 - Foods that are baked, broiled, grilled, boiled, microwaved, or roasted foods, with minimal amounts of fat
- Limit sweet drinks, including cola, juice, punch, sweet tea, lemonade, and Kool-Aid. Substitute diet or sugar-free drinks if recommended by the care team.
- Limit portion sizes.
- Increase physical activity level.
- Make healthy choices as a family.
- Eat slowly. Take time to enjoy foods.
- Eat only when you are hungry.

Good nutrition helps paediatric cancer patients achieve normal growth and weight gain, continue taking part in daily activities, and improve overall health.

RECIPE FOR MAIZENA PORRIDGE:

This tasty dish is as easy to eat as it is to make!

INGREDIENTS:

- 15 ml Maizena (cornflour)
- 180 ml full cream milk
- 1 egg
- 7 ml sugar
- 2 ml vanilla essence
- 1 ml cinnamon

METHOD:

Step 1: Heat milk and sugar

Step 2: Add egg to above and heat until mixture thickens and egg is cooked

Step 3: Make a paste with Maizena and a little water and stir into hot mixture

Step 4: Add vanilla and cinnamon – can increase volume to taste

Step 5: Serve to your child with love and care



CHILDREN ON STEROIDS DURING TREATMENT (DEXAMETHASONE, PREDNISONE)

Consequences of corticosteroids:

- An increase in appetite with cravings for fatty, salty food (energy intake)
- An increase in body fat mass
- An increase in insulin resistance
- Hyperinsulinemia (excess levels of insulin circulating in the blood relative to the level of glucose)
- A loss of muscle mass and strength, resulting in weakness
- Osteoblast activity, resulting in decreased bone resorption and a disturbance in the bodies calcium balance
- Gastritis – inflammation of the lining of the stomach
- Mood swings

WHILE CHILDREN ARE ON STEROIDS DURING TREATMENT

Reduce the sodium or salt content of food - each item should be less than 140 mg per 100 g of the product for it to be considered low sodium or low in salt.

Products containing the following must be eaten in moderation (these are all just fancy names for salts!):

- Sodium chloride or salt
- Sodium phosphate or Monosodium Glutamate (MSG)
- Sodium benzoate or hydroxide or nitrate
- Sodium propionate or bicarbonate or sulphate

Some examples of higher salt foods (all can be eaten but in moderation):

- 2 min noodles
- Cup a Soup, instant soups
- Salticrax, bacon chips, TUC biscuits and packets of chips
- Salted popcorn
- Canned vegetables
- Cereals: Corn flakes, Rice Krispies, All-bran, Special K

FOODS TO REDUCE

- Harmful fats (saturated): These fats can be bad for your child's heart, causing heart problems later in life.

We recommend that your child eats the following only occasionally when they have cravings:

- Brick-type margarine wrapped in foil packaging
- Processed meats: polony, salami, russians, viennas, frankfurters, ham, corned beef, pies, savouries
- Take-aways: hamburgers, hot dogs, pizza, meat pies, toasted sandwiches, fried fish (food prepared in high volumes of oil)
- Coffee creamers, e.g. Cremora or Ellis Brown
- Coconut products
- Potato chips
- Biscuits, pretzels
- Chocolates



NEUTROPENIC - / BACTERIA FREE - / ISOLATION DIET

A neutropenic diet is for people with weakened immune systems. This diet helps protect them from bacteria and other harmful organisms found in some food and drinks. If your immune system is not working well, your body may have a hard time protecting itself from these bacteria.

FOOD GROUP	ALLOWED	NOT ALLOWED
Water	<ul style="list-style-type: none"> • Sterile water • Boiled tap water 	<ul style="list-style-type: none"> • Bottled (except oxygenated) • Unboiled water • Home filtered water is NOT bacteria free
Milk	<ul style="list-style-type: none"> • Milk, cream - UHT sterilized in individual portions. • Hard cheese (wrapped) • Cheese spread (cheddar, mozzarella) • Ice cream (individual wrap) 	<ul style="list-style-type: none"> • Unpasteurised milk products • Soft cheeses & cheese with mould: (sharp cheddar, goat, roquefort's, blue cheese and stilton) • Any cheese with added veggies, herbs, peppers • Fresh cream/Unpasteurised or live yoghurt
Starch & Fats	<ul style="list-style-type: none"> • Bread (only newly opened pre packed/sealed) • Individually wrapped bakes e.g. muffins, scones, rolls, pastries • Cereals, plain, pre sealed single portions • Rice, pasta (well cooked) • Margarine/butter (single sealed portion) 	<ul style="list-style-type: none"> • Cereals with added milk powder or sugar coated • Unwrapped bread, muffins, doughnuts • Cream cakes • Slow cooked rice • Fresh pasta
Meat, Poultry, Eggs	<ul style="list-style-type: none"> • Cooked frozen meals from the food service unit • Tinned beef (beef, pork, lamb poultry, bacon, fish) • Meat and fish paste in small or single dose. 	<ul style="list-style-type: none"> • Sausages, pies • NO TAKE AWAYS • Salami, uncooked sandwich meats, biltong, liver pâté • Shell fish e.g. prawns, crab

NEUTROPENIC-/BACTERIA FREE-/ISOLATION DIET

FOOD GROUP	ALLOWED	NOT ALLOWED
Fruit & Vegetables	<ul style="list-style-type: none"> ● ONLY fresh, washed, peeled ● Tinned fruit, tinned and frozen veggies ● ALL vegetables MUST be peeled, washed, cooked ● Raw tomato and cucumber MUST be washed and peeled 	<ul style="list-style-type: none"> ● Unpeeled, unwashed ● Dried fruit. ● NO FRESHLY squeezed juice ● Unwashed/unpeeled fruits and veggies ● Raw root ● Ready made salads
Drinks	<ul style="list-style-type: none"> ● Pasteurised drinks, individual soft drinks ● Nutritional supplements (individual portions) ● Tea, coffee from individual sachets. ● Ice cubes and ice lollies from sterile water 	<ul style="list-style-type: none"> ● Squashes unless pasteurised ● Any cool drink that is not individually packed



PATHOGENS ASSOCIATED WITH FOOD

Food	Associated Pathogen
Improperly canned foods	<ul style="list-style-type: none">• Clostridium botulinum
Poultry (raw, undercooked)	<ul style="list-style-type: none">• Campylobacter jejuni• Clostridium perfringens• Listeria monocytogenes• Salmonella• Shigella• Staphylococcus aureus
Meat (raw, undercooked)	<ul style="list-style-type: none">• Clostridium perfringens• Escherichia coli• Salmonella• Staphylococcus aureus• Yersinia enterocolitica
Deli meat	<ul style="list-style-type: none">• Listeria monocytogenes
Fish, seafood, shellfish (raw, undercooked)	<ul style="list-style-type: none">• Clostridium botulinum• Clostridium perfringens• Listeria monocytogenes• Salmonella• Vibrio cholera• Vibrio parahaemolyticus• Vibrio vulnificus• Yersinia enterocolitica

PATHOGENS ASSOCIATED WITH FOOD

Unpasteurised dairy products	<ul style="list-style-type: none">• <i>Campylobacter jejuni</i>• <i>Escherichia coli</i>• <i>Listeria monocytogenes</i>• <i>Salmonella</i>• <i>Shigella</i>• <i>Yersinia enterocolitica</i>
Eggs (raw, undercooked)	<ul style="list-style-type: none">• <i>Salmonella</i>• <i>Staphylococcus aureus</i>
Vegetables (raw, unwashed)	<ul style="list-style-type: none">• <i>Listeria monocytogenes</i>• <i>Escherichia coli</i>• <i>Pseudomonas aeruginosa</i>• <i>Salmonella</i>• <i>Shigella</i>• <i>Yersinia enterocolitica</i>
Sprouts (raw)	<ul style="list-style-type: none">• <i>Escherichia coli</i>• <i>Listeria monocytogenes</i>• <i>Salmonella</i>
Fruit (raw, unwashed), unpasteurized fruit juice	<ul style="list-style-type: none">• <i>Escherichia coli</i>• <i>Pseudomonas aeruginosa</i>• <i>Salmonella</i>• <i>Shigella</i>
Custard or cream-filled baked goods	<ul style="list-style-type: none">• <i>Staphylococcus aureus</i>

Your child may:

- Have learned to dislike certain foods
- Have a fear of vomiting
- Use emotional blackmail on you

Or, you might have been allowing certain foods and breaking rules, and now you're dealing with the consequences.

Remember: One of the only things children can control through a cancer diagnosis is their food, and some act up here and refuse to eat. This causes a lot of stress and pressure for parents.

THE HEALTHY DIET RATIO:

PROTECTIVE FOODS:

- Apricots, cherries, peaches, plums, apples, pears, lemons, limes, grapefruit, oranges, naartjies, kiwis, grapes, juice of low GI fruits (only 1-2 glasses).
- Baby marrows, cauliflower, broccoli, cabbage, spinach, marogo, green beans, peas, onions, gem squash, tomatoes, lettuce, cucumber, green peppers, brinjals, mushrooms.

ENERGY-GIVING FOODS:

- Oats (Bokomo), Pronutro Wholewheat (original and apple bake), high-fibre bran, Maximiz, mealie meal, oat bran and Future life porridge.
- Provitas, pumpernickel bread, seed loaf bread, wholewheat bread with whole kernels and crushed wheat.
- Pasta, pearled whole wheat, cold samp, pearled barley, sweet potato, mealies, whole corn.
- Baked beans, all dry and canned beans, peas, lentils, tinned pasta and beans.

BODY-BUILDING FOODS:

- Low fat / fat-free milk (plain and flavoured), low fat / fat-free yoghurt (plain and sweetened).
- Low fat / fat-free custard (sweetened and unsweetened), low fat ice cream (sweetened and unsweetened).
- Red meat, chicken, fish, eggs and legumes
- Oils and fats like mixed nuts and seeds, nut butters and avocados

MANAGING MOUTH SORES AND ULCERS

Regular use of antibacterial mouthrinse can successfully reduce the risk to get mouth sores. You can make your own solution.

- Use 1 l of cooled down boiled water
- 1 Spoon of salt
- 1 Spoon of bicarbonate soda
- 10-15 drops of tea tree oil.
- Rinse the mouth after every meal and spit out

Information kindly provided by the *Together by St. Jude™* online resource. To learn more, please visit together.stjude.org

Mouth and throat sores are common side effects of cancer treatment in children. The clinical name for this condition is **mucositis**.

What is Oral Mucositis?

Mucositis is a swelling of the mucous membrane which is the moist, inner lining of some organs usually causing painful sores.

Mucositis can occur anywhere along the digestive tract including: Mouth, Swallowing tube (oesophagus), Stomach, Intestines, anus.

More than 50% of childhood cancer patients may develop mucositis. More than 75% of patients who have a stem cell transplant (also called a bone marrow transplant or hematopoietic cell transplant) may have this side effect.

What is oral mucositis?

Oral mucositis refers to mouth and throat sores. These are a cause for concern because they can:

- Cause pain and discomfort
- Make it difficult for patients to eat and drink
- Make patients more at risk for infection
- Cause changes to the patient's treatment plan

Dealing with mouth and throat sores may include:

- Prevention
- Treatment of pain and discomfort
- Treatment of infections
- Nutrition support

Signs and symptoms of mouth and throat sores:

Patients and families should tell the care team when signs and symptoms appear.

Signs and symptoms include:

- Soreness or pain in or on the lips, mouth, or throat
- Difficulty swallowing
- Pain in the chest area following swallowing
- Increased discharge (drooling) from inside the mouth or throat
- White patches or sores in the mouth or throat
- Bleeding from gums
- Body temperature above 38.0 C

Diagnosis of mouth and throat sores

The care team diagnoses mouth and throat sores by:

- Physical exam of the mouth and throat
- Patient's report of pain and inability to eat and drink

The care team will grade the oral mucositis from 1-4 based on how bad it is. This grade will help guide the treatment. Grades 3-4 are severe. Complications are more likely.

How to help a child manage mouth sores and ulcers:

- Serve them soft foods such as pudding, jelly, mashed potatoes, mac and cheese, applesauce, bananas, and ice cream
- Use a blender, or cut food into small pieces so it is easier to eat
- Use a straw to make liquids easier to swallow
- Offer cold foods like ice lollies, ice cream, milkshakes, smoothies, or flavoured ice
- Let cereal soak in milk to soften it before eating
- Include fruits and vegetables through soups, stews, smoothies, and pureed fruit pouches
- Use a slow cooker to create moist, tender meals
- Add gravies to meats
- Avoid salty, spicy, sour, or very strongly seasoned foods, as these foods may burn the mouth and throat
- Avoid hard or rough foods like toast and crackers

Encourage the child to adopt a good mouth care routine:

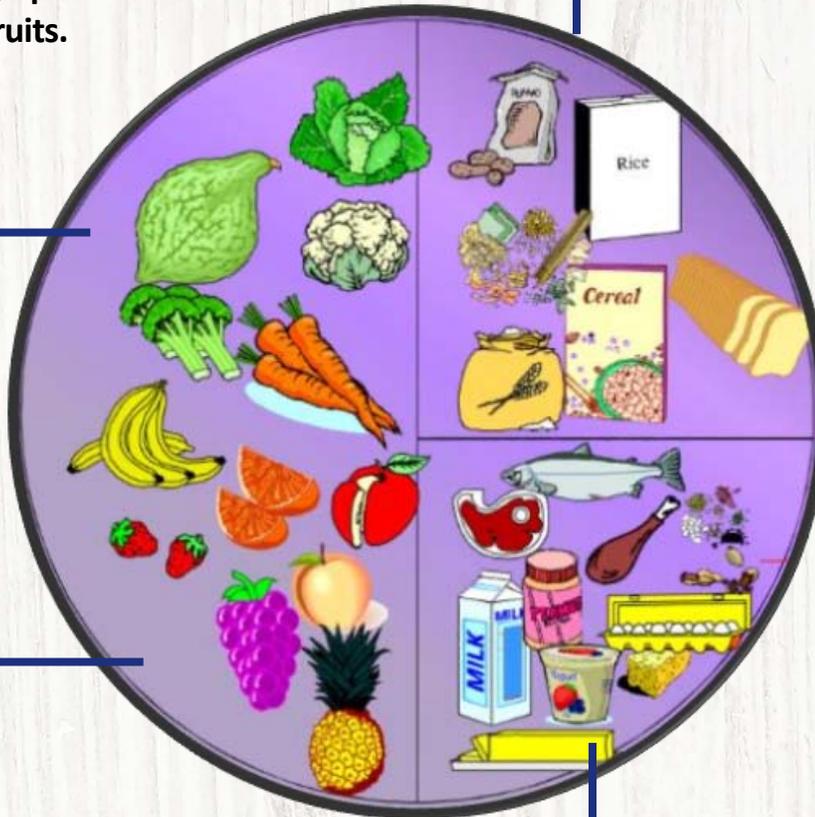
- Use a soft toothbrush after meals and snacks
- Gently place the brush onto each tooth and move it in a circle. Do not press too hard, which could injure the gums
- Use dental floss after brushing to clean well between the teeth. Be gentle so as not to injure the gums
- Use a soft cloth dipped in water if the mouth is too sore to be brushed
- Use an antibacterial mouth rinse if recommended by the care team
- Keep lips moisturised
- Be sure to see a dentist regularly to check for any cavities or dental concerns
- Apply tea tree oil to the affected areas, 3 times daily for relief



THE HEALTHY DIET RATIO

PROTECTIVE FOODS

Apricots, cherries, peaches, plums, apples, pears, lemon, lime, grapefruit, oranges, naartjies, kiwi, grapes.
Juice of low GI fruits.



PROTECTIVE FOODS

Baby marrows, cauliflower, broccoli, cabbage, spinach, marogo, green beans, peas, onion, gem squash, tomato, lettuce, cucumber, green pepper, brinjal, mushrooms.

ENERGY FOODS

Oats (Bokomo), ProNutro Whole Wheat (original and apple bake), Weetbix, high fibre bran, Maximize

Provita, pumpnickel bread, seedloaf bread, whole wheat bread with whole kernels and crushed wheat

Pasta, pearled whole wheat, cold samp, pearled barley, sweet potatoes, mealies, whole corn

Baked beans, all dry and canned beans, peas, lentils, tinned pasta and beans

BODY BUILDING FOODS

Low fat/fat free* milk (plain and flavoured)

Low fat/fat free* yoghurt (plain and sweetened)

Low fat/fat free* custard (sweetened and unsweetened)

Low fat* ice cream (sweetened and unsweetened)

*unless full cream is recommended by your registered dietitian

HOW CAN CANSA TLC SUPPORT YOU AND YOUR CHILD WITH CANCER

We educate and promote awareness of childhood cancers and early detection. CANSA TLC offers support groups, prosthetic assistance, skills development, educational programmes and volunteer training

Join our closed Facebook parent support group for support and guidance - '@CANSA TLC - Childhood Cancer Support'

<https://www.facebook.com/groups/77500050173>

CANSA Tele Counselling can be accessed via the CANSA Help Desk on 0800 22 66 22 toll free, to make an appointment with a CANSA counsellor. Or send an email to the Help Desk via counselling@cansa.org.za – this is a confidential, professional, cancer-related telephonic counselling service to cancer patients, caregivers and their families and parents or guardians of children living with cancer. Counselling is available in seven languages (English, Afrikaans, isiXhosa, isiZulu, siSwati, Sesotho and Setswana) and is free of charge.

CONNECT WITH HOPE

- Having a child or teenager with cancer is a traumatic experience for the whole family. Did you know that CANSA has launched its Tele Counselling service? We offer free appointment based counselling for parents, caregivers and children diagnosed with cancer and their siblings. We are here. You do not have to go through this alone
- Trained counsellors will confidentially and professionally support those in need
- Free counselling in 7 languages (English, Afrikaans, isiXhosa, isiZulu, siSwati, Sesotho and Setswana)

- Book an appointment via the CANSA Help Desk (0800 22 66 22), email (counselling@cansa.org.za) or www.cansa.org.za
- Service available weekdays 08:00-16:30

Tele Counselling

072 197 9305
071 867 3530
Toll-free 0800 22 66 22 | www.cansa.org.za



Research • Educate • Support

0800 22 66 22

 info@cansa.org.za

 www.cansa.org.za

 @CANSAs

 @cancerassociationofsouthafrica

 CANSA The Cancer Association of South Africa



+27 (0)28 514 3441

 info@bwellfoods.co.za

 www.bwellfoods.co.za

 @bwell_foods

 @bwellfoods

 B-well

CREDITS

We would like to express our heartfelt gratitude to the **Together by St. Jude™** online resource for providing much of the information on this brochure. Please visit together.stjude.org to find additional information and educational resources for patients, families, and caregivers facing childhood and adolescent cancer.

