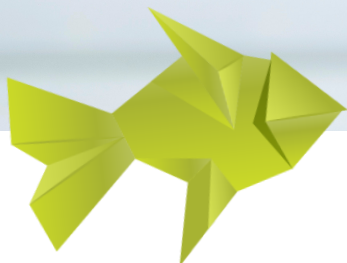




A GUIDE TO

Your Child's Diet After Surgery

**Department of Pediatric
Plastic Surgery**



UPMC | **CHILDREN'S**
HOSPITAL OF PITTSBURGH

Welcome to Your Child's Dietary Guide

To promote healing after surgery, your child will follow a staged diet for several weeks, which includes:

1. **Clear Liquid Diet**
2. **Full Liquid Diet**
3. **No-Chew Diet**
4. **Soft Textured Diet**
5. **Regular Diet**

They may only be allowed liquid foods for several days to several weeks. How quickly they move through the diet stages will depend on the surgeon and the type of surgery they had.

A blender, food processor, or single-cup blender will be very helpful. You can also buy ready-made foods such as smoothies and nutritious food supplements.

The food menus available while in the hospital will also be provided so you may plan for foods they prefer or preferences such as vegan/vegetarian, diabetic, or kosher diets.



Dietary Guide

Diet Supplements

To be better prepared, we recommend that your child tries one or more of these drinks before surgery to find one they like best. These are the most common ones available in both made-to-drink liquid and powdered versions:

- **Ages 1-13:** PediaSure®
- **Ages 4+:** Carnation Breakfast Essentials® (Flavors include chocolate, strawberry, vanilla, cookies n' creme, mixed berry, and more)
- **Ages 13+:** Ensure® or Boost®

Your insurance provider may or may not cover the cost of these supplements. The surgery team and/or the care coordinator can help you to explore this during the hospital stay. They will submit a prescription to your insurance provider and a local supplier.

Coverage varies based on insurance and the supplier will contact you with the decision of the insurance company. This may take up to 48 to 72 hours. If you wish to submit to your insurance, please let the surgical team know after surgery and before leaving the hospital.

Diet Stage #1: Clear Liquids

Description: Clear fluids that you can see through.

Examples:

- Water (may use water flavor enhancers)
- Juice (apple, grape, pear, cranberry, or prune)
- Clear Broth (strained chicken, beef, or vegetable)
- Drinks: Gatorade®, lemonade, or fruit punch
- Soda: ginger ale, orange, Sierra Mist®, or Sprite® (some people prefer these to be flat)
- Frozen: Italian ice, slushies, or melted popsicles
- Supplements: Ensure® Clear (apple, berry)*, or Pedialyte®

*Available in the hospital

Diet Stage #2: Full Liquids

Description: Easy-to-pour liquids and no chewing needed. Does not need to be clear.

Examples:

- All options in the clear liquid diet (stage #1)
- Milk (dairy or non-dairy) or milkshakes
- Smoothies
- Smooth soups, cold or warm, strained with no noodles or food pieces
- Yogurt or pudding thinned with milk or water so it is pourable
- Ice cream or sherbet (soft serve or slightly softened/melted)
- Supplements:
 - **Ages 1-13:** PediaSure®*
 - **Ages 4+:** Carnation Breakfast Essentials®
 - **Ages 13+:** Boost® Plus*, Ensure®*, Ensure® Plus*

*Available in the hospital

Diet Stage #3: No-Chew

Description: Thicker foods that do not need to be chewed.

Examples:

- All options in the clear (stage #1) and full liquid (stage #2) diets
- Purees
- Applesauce, no chunks of apple
- Yogurt (Whole milk Greek yogurt is recommended for high protein. Can add fruit puree in different flavors)
- Pudding
- Mashed potatoes thinned with milk
- Cream of Wheat®
- Gelatin
- Thicker soups, no chunks of food

Continued >

- Supplements:
 - **Ages 1-13:** PediaSure®*
 - **Ages 4+:** Carnation Breakfast Essentials®
 - **Ages 13+:** Boost® Plus*, Ensure®*, Ensure® Plus*

*Available in the hospital

Diet Stage #4: Soft Textured

Description: Soft foods that require little jaw movement. Food can be mashed with fingers or a fork. No sharp, firm, or extra chewy foods.

Do not eat sandwiches or chew gum.

Soft Food Examples:

- All options in the clear (stage #1), full liquid (stage #2), and no-chew (stage #3) diets
- Eggs (scrambled or poached)
- Cottage cheese (can add strained fruits or vegetables such as carrots or peaches)
- Soups with noodles or mashed vegetables such as mushroom soup
- Pasta that is well or overcooked to be soft. (macaroni and cheese, SpaghettiOs®, or pasta with a smooth red or pesto sauce)
- Soft pancakes (can add butter and syrup)
- Soft bread (small pieces with NO crust)
- Flaky fish
- Cooked ground beef (can add taco seasoning)
- Steamed vegetables (broccoli, peas, or carrots)
- Supplements:
 - **Ages 1-13:** Peditasure®*
 - **Ages 4+:** Carnation Breakfast Essentials®
 - **Ages 13+:** Boost Plus*, Ensure*, Ensure® Plus*

*Available in the hospital

Diet Stage #5: Regular

Description: No food restrictions

Supplements:

- **Ages 1-13:** PediaSure®*
- **Ages 4+:** Carnation Breakfast Essentials®
- **Ages 13+:** Boost® Plus*, Ensure®*, Ensure® Plus*

*Available in the hospital



Palate Surgery

Tips for feeding/eating:

- No pacifiers, straws, or objects in the mouth after surgery
- Use a sippy cup, 360 cup, or open cup for liquids
- Do not use cups that require a lot of suction or pulling to drink
- At the soft textured diet stage (stage #4), a spoon can be used at the level of the lips, but do not allow it inside the mouth

Jaw Surgery

- Bands may limit the opening of the mouth
- Tips for feeding/eating:
 - Open cups - you may like flexible or disposable cups that can be bent for better control
 - Syringe - with or without tubing attached, provided by the hospital. Keep the tubing short to avoid injury to the incisions (cuts) in the mouth.
 - Squeeze bottle - with or without straw
 - Prepackaged drinkable yogurt containers/tubes or squeeze pouch applesauce and purees

Additional Tips and Recommendations

Diet: A balanced diet helps your child to heal. Eat proteins, fruits, and vegetables to get a variety of nutrients.

Common sources of protein for healing:

- Dairy (milk, Greek yogurt)
- Beans
- Soy/Tofu
- Meats (chicken, beef, pork)
- Fish
- Nut butters
- Eggs
- Avocado

General Tips:

- After eating, rinse or drink clear liquids to remove foods from the mouth and incisions
- An inexpensive blender or food processor will be helpful. You can blend foods to the right consistency for the diet stages.
- Do not be afraid to get creative! Some patients have blended favorite foods such as pizza and hamburgers with a liquid.
- If your child has a poor appetite or does not eat a variety of foods, a children's flavored chewable multivitamin tablet is recommended. Nutrition Services recommends that complete multivitamin chewable tablets be crushed and dissolved in liquid or added to yogurt or pudding daily.



Constipation

If your child is not having normal bowel movements:

- Give foods that are high in fiber
 - Examples: Pears, peaches, prunes, plums, avocado, and sweet potatoes*

*Prepare food to the consistency of the current diet stage. Try steaming or roasting and then pureeing for the no-chew diet (stage #3) or mashing for the soft-textured diet (stage #4).

- Try a no-chew diet:
 - Pears, peaches, prunes, plums, avocado, and sweet potatoes pureed or finely mashed
 - Finely ground flax seed and chia seed added to smoothies or other recipes. Avoid any whole seeds or nuts until cleared for a regular diet.
- Increase water intake and stay hydrated
- Talk to your child's surgical team and pediatrician about over-the-counter medicines such as Colace®, MiraLAX®, or other options.

If Your Child is Diabetic

- Changes in diet can lead to swings in blood sugar (glucose) numbers. Knowing this can help you to be prepared before and after surgery
- Children over 13 years old can use Boost Glucose Control® or Glucerna® for dietary supplements
- Steamed and pureed vegetables are a great option for no-chew and soft diets. Add spices to the vegetables or combine purees for more flavor. Some ideas:
 - Broccoli with garlic and cumin
 - Pumpkin or Butternut Squash with cinnamon and nutmeg
 - Peas and pears with mint
 - Silken Tofu pureed with cherry and kale
 - Blueberry, chickpea, pear, and spinach with rosemary
 - Lentils (well-cooked and pureed), plums, and cinnamon

If Your Child has a Gastic (Stomach) Tube

Before Surgery

- Let the surgery team know the formulation, volume, and rate that your child receives food at home. Bring this information to your pre-surgery appointment and on the day of surgery.
- If your child also takes food by mouth, they will follow the same diet guidelines about food taken by mouth.

After Surgery

- At first, they will receive clear liquids (Pedialyte®) at half the normal rate until they are well tolerated.
- Once clear liquids are well tolerated, they will be given their home formulation at a slow or modified rate.
- When the slow/modified rate of the home formulation is well tolerated, it will be given at a normal rate.

Contact the office if your child:

- Has decreased urine (less than 5 wet diapers a day for babies and no wet diapers or urine for 8 hours in toddlers or older children)
- Has no tears when they cry
- Is tired, weak, listless, or has a lower level of activity than normal
- Has redness, drainage, or an opening on the incision on the surgical site

Resources

The Nutrition Team at UPMC Children's Hospital of Pittsburgh recommends the "Ages and Stages" webpage at HealthyChildren.org as a resource for dietary questions and guides.

You will find articles and examples for every "age and stage" of childhood. Keep in mind that all children are different and after surgery, their needs and desires can change.

Recipe Guide

Smoothies

Smoothies are an ideal food for full-liquid diets. The options are endless to meet each child's food preferences. For a great texture, use frozen fruits and vegetables. Below are some ideas to get you started.

You can start with 1 to 2 fruits, a liquid, and a protein source.

Fruits/Vegetables	Greens	Protein	Liquid	Add-Ins
1 Cup <ul style="list-style-type: none"> Banana Strawberry Peach Blueberry Kiwi Pineapple Pear Butternut squash Pumpkin puree 	About 1/4 - 1/2 Cup <ul style="list-style-type: none"> Spinach Kale 	About 2-4 Tablespoons <ul style="list-style-type: none"> Yogurt (Greek yogurt has highest protein) Nut butter (peanut butter, almond butter) Silken tofu Avocado 	1 Cup <ul style="list-style-type: none"> Dairy milk Nondairy milk (oat milk, almond milk, coconut milk, soy milk) Breast milk or formula for babies under 12 months of age Water Coconut Water Fruit Juice Liquid protein supplement 	About 1 Tablespoon <ul style="list-style-type: none"> Nut butter (peanut butter, almond butter) Finely ground flax seed or chia seed Finely ground hemp seed Ginger Cinnamon

Please Note: Nutrition facts for recipes may vary based on specific ingredients used.

Full-Liquid Diet Recipes (Stage #2)

Directions for Smoothies:

- Place all ingredients in a blender.
- Blend until smooth.
- Serve immediately or place additional portions in the freezer to thaw for later use.

Strawberry and Banana Smoothie

(gluten-free, vegetarian, with dairy-free/vegan option)

Common allergens: Dairy

Number of Servings: About two 1-cup portions

Total Time: 10 minutes

Ingredients:

- Frozen Banana | 1 banana, medium-sized
- Frozen Strawberries | 1 cup
- Plain Whole Milk Greek Yogurt* | ½ cup
- Vanilla Extract | 1 teaspoon
- Milk (Dairy or Non-dairy milk of choice)** | 1 cup

*Can be made vegan with plant-based milk and yogurt.

**Can be made dairy-free with oat milk, almond milk, or coconut milk. If your child is under 12 months of age, use water, formula, or breast milk.

1 cup contains: 135 calories, 3.9g fat, 20g carbohydrate (2.2g fiber, 9.2g sugar), and 5.6g protein

For more nutrients, add ¼ cup of spinach or 2 tablespoons of almond or peanut butter.

Butternut Squash and Tofu Smoothie

(gluten-free, vegetarian, with dairy-free/vegan option)

Common allergens: Dairy, soy

Number of Servings: About two 1-cup portions

Total Time: 10 minutes

Ingredients:

- Frozen Banana | ½ banana (peel and cut in half before freezing)
- Silken Tofu | 2 ounces
- Frozen Butternut Squash, cubed or pureed | 2 ounces (¼ cup)
- Applesauce | 1 ounce (1/8 cup)
- Old Fashioned Oats or baby oatmeal (gluten-free if needed) | 3 tablespoons
- Milk (dairy or non-dairy milk of choice)* | 6 ounces (¾ cup)
- Cinnamon, ground | 1/8 teaspoon

*Can be made dairy-free with oat milk, almond milk, or coconut milk. If your child is under 12 months of age, use water, formula, or breast milk.

1 cup contains: 67 calories, 2g fat, 10g carbohydrate (1.1g fiber, 4.6g sugar), and 2.8g protein

No-Chew Diet Recipes (Stage #3)

Peanut Butter Chocolate Banana "Ice Cream"

(gluten-free, vegetarian, with dairy-free/vegan option)

Common allergens: Dairy, peanuts

Number of Servings: About two 1-cup portions

Total Time: 10 minutes

Ingredients:

- Frozen Banana | 2 bananas, medium-sized
- Peanut Butter | ¼ cup
- Cocoa Powder | 1 tablespoon
- Milk (Dairy or Non-dairy milk of choice)* | ½ cup

*Can be made dairy-free/vegan with oat milk, almond milk, coconut milk, or any plant-based milk. Substitute a vanilla-flavored supplement for milk (PediaSure® or Ensure®/Boost® based on age) for added protein. If your child is under 12 months of age, use water, formula, or breast milk.

Directions:

- Place ingredients into a large or single-serving blender.
- Blend until smooth.
- Store in refrigerator or freeze any extra for later thawing/use.

1 cup contains: 341 calories, 19g fat, 40g carbohydrate (5.6g fiber, 21g sugar), and 9.8g protein

Creamy Tomato and White Bean Soup

(gluten-free and vegetarian, with dairy-free/vegan option)

Common allergens: Dairy

Number of Servings: 4

Prep Time: 5 minutes

Total Time: 35 minutes

Ingredients:

- Olive Oil | 2 tablespoons
- Yellow Onion | 1, small
- Garlic | 3 fresh cloves OR 1½ teaspoons jarred, minced
- Whole Tomatoes, canned* | 1, 28-ounce can
- Vegetable or Chicken Broth | 1 ½ cups (12 ounces)
- Cannellini Beans, canned | ½ cup
- Sugar | ½ teaspoon (optional)
- Salt | ¼ teaspoon
- Black Pepper | ½ teaspoon
- Heavy Cream** | ½ cup

*Canned whole tomatoes have different contents than crushed tomatoes. Whole tomatoes can be left in the can and crushed with a fork or removed and chopped with a knife (being sure to not leave out the juices).

**Can be made dairy-free by using coconut cream instead of heavy cream. Can also be made vegan by using vegetable broth.

Directions:

- Chop onion finely. Mince garlic (if using fresh cloves). Saving the juices for later in the recipe, remove and crush or roughly chop whole tomatoes. Puree white beans until smooth by placing into a blender/food processor or by using a stick immersion blender into the can.
- Heat olive oil in medium-sized pot over medium heat.
- Add chopped onions to the oil and cook, stirring occasionally for 6-8 minutes, until translucent and soft.
- Add garlic and cook until fragrant, about 30 seconds.
- Add tomatoes and juices, broth, salt, pepper and sugar (if using).
- Increase heat to high and bring to a boil.
- Add pureed white beans and reduce heat to medium-low.
- Simmer soup for 20 minutes.
- Blend soup until smooth by carefully placing the hot soup into blender/food processor or by using a stick immersion blender directly into the pot.
- Stir in the heavy cream. Season with salt and pepper to taste.

¼ of recipe contains: 248 calories, 18g of fat, 18g carbohydrate (4g fiber, 3.7g sugar), and 4.2g protein

Mashed Sweet Potatoes

(gluten-free, vegetarian, with dairy-free/vegan option)

Common allergens: Dairy

Number of Servings: 1 cup portion

Prep Time: 5 minutes

Total Time: 1 hour and 30 minutes

Ingredients:

- Sweet Potato | 1, medium-sized
- Whole Milk* | 3 tablespoons
- Unsalted Butter | 1 tablespoon
- Salt | 1/8 teaspoon
- Cinnamon | 1/8 teaspoon
- Maple Syrup | ½ teaspoon

Directions:**

- Preheat the oven to 400°F.
- Using a fork, poke holes throughout the sweet potato.
- Wrap in aluminum foil.
- Place directly onto the oven rack and bake for 1 hour and 20 minutes.
- Unwrap from foil and allow potato to cool.
- Peel potato using hands.
- Place potato in a stand mixer or large bowl for use with a hand mixer.
- Add whole milk, butter, salt, cinnamon, and maple syrup to the bowl.
- Mix on high until smooth.
- Serve immediately or store in refrigerator for up to 4 days.

*Can be made dairy-free with oat milk, almond milk, or coconut milk.

**For a shorter cook time (result will be slightly less flavorful), skip steps 1-6 and peel and cube raw sweet potato into approximately ½ inch pieces. Boil in salted water for 25 minutes. Strain and let cool slightly. Then mix per steps above (steps 7-10).

Recipe contains: 248 calories, 13g fat, 31g carbohydrate (3.9g fiber, 9.7g sugar), and 3.5g protein

Soft Textured Diet Recipes (Stage #4)

Banana Pancakes

(vegetarian with dairy-free, vegan, and gluten-free option)

Common allergens: Eggs

Number of Servings: 16 (1/8 cup) pancakes

Prep Time: 10 minutes

Total Time: 30 minutes

Ingredients:

- 2 Bananas, ripe, medium-sized
- 3 Eggs*
- Old Fashioned Oats* | 1 cup
- Baking Powder | ½ teaspoon
- Salt | A pinch

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Optional Add-In Ingredients:

- Fresh Blueberries | ½ cup
- Chocolate Chips | ½ cup
- Fresh Spinach | ½ cup
- Peanut Butter | 2 tablespoons
- Ground Hemp Seeds | 2 tablespoons (an added source of protein)

*Make sure oats are labeled gluten-free if there is an intolerance or allergy. To make egg-free/vegan, substitute eggs with flax eggs, mix 1 tablespoon ground flaxseed with 2 tablespoons water (per egg). Let sit for 5 minutes before adding to batter.

Directions:

- Place bananas, eggs, oats, baking powder, and salt into a blender or small food processor. If using an optional add-in, stir in by hand.
- Heat griddle or non-stick pan over medium heat.
- Grease griddle or pan with non-stick spray or melted butter. Place about ¼ cup of batter onto the hot pan, spacing with enough room to safely flip.
- Cook for about 3 minutes (or until batter begins to bubble and bottom side is golden brown). Flip and cook an additional 2 to 3 minutes (until other side is also golden brown).
- Remove from pan and place onto cool surface. Repeat above steps until all batter is used, greasing pan between each batch.
- Store in air tight container in the refrigerator for 3 days or place in the freezer for up to 6 months.

1 pancake (1/8 cup mix) contains: 46 calories, 1.3g fat, 7.1g carbohydrate (0.9g fiber, 2g sugar), and 2g protein

Spinach and Walnut Pesto

(vegetarian, with gluten-free and dairy-free/vegan option)

Serve with well-cooked pasta noodles. Pasta noodles can be gluten-free.

Common allergens: Nuts, dairy

Number of Servings: 8

Prep Time: 10 minutes

Total Time: 15 minutes

Ingredients:

- Basil, fresh | ¼ cup
- Spinach, fresh | ½ cup
- Walnuts | 2 tablespoons
- Garlic | 1 clove, fresh or ½ teaspoon jarred minced garlic
- Lemon Juice | ½ fresh lemon or 1 tablespoon
- Parmesan Cheese, grated* | ¼ cup
- Olive Oil | ¼ cup
- Salt | ¼ teaspoon
- Ground Black Pepper | ¼ teaspoon

*To make dairy-free/vegan, substitute non-dairy grated cheese.

Directions:

- Place all ingredients into a food processor. (A large or small food processor or a single-serving blender will all work well).
- Blend until ingredients are fine and have a paste-like texture.
- Cook noodles - for a soft diet, overcook noodles to a very soft and mashable consistency (cook for 2 to 4 minutes longer than package directions).
- Add pesto to pasta. (A little bit of pesto goes a long way. Start with about 1 tablespoon of pesto to ½ cup of noodles and add more as desired).
- Store in an airtight container for up to 4 days in the refrigerator. You can also place in an ice cube tray and freeze for later use. Store in the freezer for up to 6 months.

1/8 of recipe contains: 94 calories, 9.9g fat, 1.6 g carbohydrate (0.4g fiber, 0.4g sugar), and 2g protein

Baked Salmon

(gluten-free, dairy-free, pescatarian)

Serve with fresh lemon or other sauce of choice (Honey Soy Glaze or Dill Yogurt sauce).

Common allergens: Fish

Prep Time: 5 minutes

Total Time: 25 minutes

Ingredients:

- Salmon Filet (about 7 ounces) | Fresh or Thawed (If frozen, thaw before cooking by placing in the refrigerator for 12 to 24 hours, or place the sealed filet in a bowl of warm water for 30 minutes before cooking)
- Olive Oil | 1 tablespoon
- Salt | 1 pinch
- Black Pepper | 1 pinch
- Parsley, fresh or dried | 1/8 teaspoon

Directions:

- Preheat oven to 350°F.
- Prepare a baking sheet with a silicone baking mat, foil, or nonstick cooking spray.
- Place salmon skin side down on the baking sheet.
- Drizzle with olive oil. Season with salt, pepper, and parsley.
- Bake for 18 minutes, or until the inside of the salmon is no longer dark pink and uniform in color (light pink), with an internal temperature of 145°F. Cook times vary.

One 7-ounce filet contains: 379 calories, 23g fat, 0.3g carbohydrate (0.1g fiber, 0g sugar), and 41g protein

Baked Falafel

(gluten-free, dairy-free, and vegan)

Serve with hummus or tzatziki sauce. For a regular diet option when restrictions are no longer needed, serve on naan bread with tomato, hummus, tzatziki, and greens of choice for a falafel wrap-style meal.

Number of Servings: 12

Prep Time: 10 minutes

Total Time: 35 minutes

Ingredients:

- Yellow onion | ½ small onion
- Garlic | 3 cloves or ¾ teaspoon dried garlic powder
- Chickpeas (Garbanzo beans), canned | 1 can, 15 ounces
- Parsley, fresh | ½ cup
- Olive Oil | 2 tablespoons
- Lemon juice | ½ lemon (about 1 tablespoon)
- Lemon zest (optional) | ½ of lemon zest
- Cumin | 1 teaspoon
- Coriander (optional) | 1 teaspoon
- Cayenne Pepper (optional) | 1/8 teaspoon
- Oat Flour | 2 tablespoons
- Baking Soda | ½ teaspoon

Directions:

- Heat oven to 375°F (select convention bake option if available).
- Prepare baking sheet with a silicone baking mat or non-stick oil spray.
- Place garlic and onion in a food processor and pulse until finely chopped.
- Add chickpeas, parsley, olive oil, lemon juice, cumin, coriander and lemon zest, and cayenne pepper if using.
- Turn on the food processor until the ingredients are smooth.
- Add oat flour and baking soda and gently pulse or hand mix until smooth.
- Using a cookie scoop or tablespoon, create heaping tablespoon-sized balls of falafel. Place onto prepped baking approximately 1 inch apart. Gently flatten with your fingers.
- Bake for 12 minutes.
- Flip falafel with a spatula and cook for an additional 12 minutes, until golden brown on both sides.

One falafel ball contains: 47 calories, 0.5g fat, 7.2g carbohydrate (1.6g fiber, 0.7g sugar), and 1.8g protein



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