# Nutrition and kidney transplant



#### Why does my child need a special diet after a kidney transplant?

After a kidney transplant, a special diet may help to:

- Keep your child and their new kidney healthy.
- Prevent high blood sugar and diabetes.
- Prevent unhealthy weight gain.
- Promote overall wellness and health.

# What diet should my child follow after a kidney transplant?

Your child's diet should be moderate in salt and should include:

- A variety of fresh fruits and vegetables.
- Lean meats, such as white meat turkey and chicken, lean fish, beef and pork.
- Reduced fat dairy products, such as skim and 1% milk, reduced fat yogurt and ice cream.
- Whole grains, such as whole wheat bread or pasta, brown rice and whole grain cereals.
- Heart healthy fats, such as olive, canola or vegetable oils, avocado, nuts and fish.
- Lots of water. Ask your child's doctor or nutritionist how much water your child should drink.
- Your child may also need foods high in protein and phosphorus, such as those listed on page 4.

# Can medicines affect my child's diet?

Yes. Some common medicines that may affect your child's diet include:

- Steroids, such as prednisone.
  - They can cause increased:
    - Appetite, causing unwanted weight gain.
    - Cholesterol and triglyceride levels (blood fats).
    - Blood sugar levels.
    - Salt and fluid retention (too much fluid in the body).
  - Steroids can also cause a breakdown of muscle and bone tissues.
- Medicines to help prevent rejection, such as sirolimus (Rapamune), tacrolimus (Prograf) and cyclosporine.
  - They can cause increased:
    - Cholesterol and triglycerides levels.
    - Blood sugar levels.
    - Blood pressure.

Ask your child's doctor or nutritionist if your child needs extra magnesium.

# Will my child gain weight after a kidney transplant?

Many people want to eat more after a transplant and may gain unwanted weight. It is important to provide the right portion sizes to help manage your child's weight and blood sugar levels.

You can help control your child's weight by avoiding fatty foods and foods high in simple sugar. Instead, give your child:

- Foods high in dietary fiber, such as legumes (beans and peas), fruits and vegetables.
- Lean meats, skinned poultry and fish.
- Nonfat dairy products, such as skim milk.
- Sugar-free drinks, such as water and unsweetened tea and milk.

# Does my child need to exercise?

Check with your child's doctor before your child exercises. The doctor may advise your child to wait 6 to 8 weeks before exercising after surgery.

After the doctor says it is OK, your child will need to exercise 3 to 4 times a week for 20 to 60 minutes each time. Some things your child can do include:

- Walking in your neighborhood.
- Riding a bike.
- Rollerblading.
- Swimming.
- Playing basketball or other sports.

# Does my child need to avoid any foods?

Your child should **NEVER** eat these foods:

- Grapefruit, grapefruit juice, pomegranate or pomegranate juice and other bitter citrus fruits, such as Seville oranges and Pomelo, if your child is taking cyclosporine or Prograf. Grapefruit and pomegranate affect how these medicines work in the body.
- Raw, rare or undercooked fish, poultry, pork, beef or eggs
- Unpasteurized milk, cheese or vogurt
- Unpasteurized juices or ciders
- Unwashed raw fruits, vegetables or salads
- Salad bars or buffet-style foods in restaurants
- Fresh sprouts, such as alfalfa or bean sprouts
- Food that is spoiled or moldy
- Food that is past its "use by" date

#### **LIMIT** these foods:

- Clementine, mandarin and citrus-containing drinks, such as 7-Up, Fresca, Squirt and Sun Drop
- Caffeine, coffee and tea, and spices in large amounts

Also avoid giving your child concentrated sweets, such as cakes, pies, cookies, jams and honey, for about 6 weeks after surgery to prevent diarrhea (loose stools).

Talk with your child's care team before giving any nutritional or herbal supplements. The team can advise which products are safe after a kidney transplant. Many supplements can interact with your child's medicine.

Follow food safe practices at home to help prevent illness from food or water:

- Clean: Wash your hands and surfaces often.
- **Separate**: Do not cross contaminate raw meat, chicken, seafood or eggs with ready to eat foods.
- Cook: Cook to the right temperature.
- **Chill**: Put food in the refrigerator within 2 hours.

For more details, you may go to the USDA's Food Safety for Transplant Recipients booklets at:

- fsis.usda.gov/sites/default/files/media\_file/2021-04/at-risk-booklet.pdf
- fsis.usda.gov/PDF/Kitchen Companion.pdf

#### What about salt?

After a kidney transplant, most people need to cut down on salt. Medicines like steroids may cause the body to retain fluid. Salt can make this problem worse and raise blood pressure. It is a good idea to limit foods high in salt, such as:

- Table salt.
- Cured meats, such as ham, bacon and sausage.
- Lunch meats, such as bologna, salami and hot dogs.
- Pre-packaged frozen dinners.
- Ramen noodles, boxed noodles, and potato and rice mixes.
- Canned soups, vegetables and pasta sauce.
- Pickled foods, such as olives, pickles and sauerkraut.
- Snack foods, such as chips, pretzels and popcorn.
- Soy sauce, barbecue sauce and hot sauce.
- Fast foods.

# What about protein?

Protein is needed right away after a kidney transplant. It helps to build muscle tissue that steroids can break down. It also helps with healing after surgery.

Give your child these high protein foods:

- Meat, poultry and fish
- Milk, yogurt and cheese
- Eggs
- Peanut butter
- Beans and peas

### What about potassium?

As long as your child's new kidney works well, they should be able to get enough potassium in their food. Some transplant medicines can increase blood potassium, while others decrease it. If blood levels are too high or too low, the doctor or nutritionist may talk with you about changes in your child's diet.

Some foods high in potassium include:

- Oranges
- Bananas
- Tomatoes and tomato products, such as pizza and spaghetti sauce
- Potatoes (white and sweet)
- Milk and yogurt

# What about calcium and phosphorus?

If your child had kidney disease for a while before the kidney transplant, their body may not have the calcium and phosphorus it needs for healthy bones. Sometimes after transplant, the blood phosphorus can become very low. If this happens, your child will need to increase the amount of phosphorus they get from food.

Some foods high in phosphorus include:

- Dairy products, such as milk, cheese, yogurt and pudding
- Peanut butter
- Bran and whole wheat bread and pasta
- Meat and poultry
- Beans and peas

After your child's blood phosphorus has returned to a normal level, they may need to take a calcium and/or vitamin D supplement each day. This will help to keep their bones as healthy as possible.

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Your child must drink plenty of	fluids to keep their new kidney wo	orking well.							
• Your child should have	milliliters (mL) of f	luid each day.							
	ounces (oz) a day,								
water bo	ttles a day.								
To help make sure your child da	rinks enough:								
• Keep track of how much yo	Keep track of how much your child drinks during the day.								
• It may help to measure out l	It may help to measure out how much fluid your child needs each day and put this in a water bottle								
Keep the water bottle with y	Keep the water bottle with your child at all times to make sure they drink all of the fluid they need								
• It is best for your child to di	rink water or milk. For a baby, use l	breast milk or formula.							
• Limit juice to 4 to 6 ounces	a day.								
What if I have more	questions?								
Talk with your child's doctor or	r nutritionist if you have questions a	about your child's diet.							
Your nutritionist is:									
The phone number is:									

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This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.