



Nutrition after Transplantation

Good nutrition is important after transplantation. Use the guide below to help get you started with healthy habits for a speedy recovery and long term wellness. You can also make an appointment with the Registered Dietitian by contacting your transplant program.

Why is protein important after transplant?

Your body will continue to heal for at least 6 weeks after surgery. Be sure to eat enough protein during this stage. Each food below contains about 7 grams of protein.

Include at least 9 choices a day from the list below:

- **Fish, Chicken, turkey** - 1 ounce which is about the size of a golf ball
 - **Lean cuts of beef, pork, duck, lamb** - 1 ounce
 - **Eggs** - 1 egg
 - **Egg whites** - 2 egg whites
 - **Cheese** - 1 ounce
 - **Milk** – 8 ounces
 - **Yogurt** - 6 ounces
 - **Cooked legumes/lentils/split peas** – ½ cup
 - **Soy products** – ½ cup tofu, ¼ cup cooked tempeh, ½ cup edamame
 - **Nuts** – 1 ounce unsalted nuts
 - **Peanut butter** - 2 tablespoons, unsalted
- } **Consider low fat cheese, milk, yogurt**

Nine choices can look like:

1 scrambled egg with 1 ounce of cheese for breakfast
4 ounces of cooked fish for lunch
3 ounces of cooked chicken for dinner

OR

2 tablespoons of peanut butter on toast for breakfast
1 cup of beans for lunch
½ cup edamame
4 ounces of turkey breast with ½ cup lentils mixed with rice, for dinner

Will I need to change how I eat?

You may need to change your eating habits due to your anti-rejection medicine. Some foods may affect the way your body breaks down the medicine prescribed by your doctor:

- Avoid grapefruit, pomelo, and pomegranate. Keep in mind, juices and sodas made from these fruits, such as grapefruit juice, pomegranate juice, Fresca® and Squirt®, and Sun Drop® citrus soda, also need to be avoided.
- Also avoid Seville oranges and star fruit

The columns below list possible side effects of your medication, and steps you can take to manage them:

Low appetite and weight loss:

- Eat 5-6 small meals a day
- Eat foods high in protein and calories
- Drink high calorie drinks, such as homemade smoothies made from pasteurized milk

Diarrhea:

- Avoid raw fruits and vegetables
- Try applesauce, cooked rice, or yogurt with live cultures
- Drink lots of fluids, such as water and tea

Nausea and vomiting:

- Choose cold protein-rich foods, such as cheese
- Avoid foods with strong odors
- Try ginger tea or ginger ale

Fluid retention:

- Avoid processed, canned or fast foods as they can contain too much sodium
- Limit the amount of salt in your cooking

Potassium

Medicine such as Cyclosporine, Tacrolimus, Bactrim®, Torsemide and Furosemide can affect your blood level of potassium, which can affect your heart muscle. If your levels are out of the normal range, you may need to adjust what you eat. Talk with your Doctor or Nurse Coordinator about your potassium levels.

Why is food safety so important?

Food safety is important for everyone – but it is critical for you! You are more at risk for food borne illnesses because of the anti-rejection medicine you take.

Follow these 4 basic food safety steps:

- 1. Clean:** Wash hands, surfaces and cooking utensils often.
- 2. Separate:** Keep raw foods and their juices away from prepared foods. This is important when using raw meat, poultry, seafood and eggs.
- 3. Cook:** All proteins below should be well-done. Cook foods to a safe temperature using a thermometer to avoid undercooking.
 - Whole, Pieces or Ground Poultry (chicken, turkey, duck) -- 165°F
 - Steaks, Roasts and Chops (beef, pork, veal, lamb) -- 145°F
 - Ground Meats (beef, pork, veal, lamb) -- 160°F
 - Fish -- 145°F
 - Egg dishes -- 160°F
- 4. Chill:** Refrigerate foods within 2 hours in winter, within 1 hour in warmer weather. Avoid foods that have been sitting out. Keep your refrigerator temperature at 40°F or below.

Additional tips to keep you safe:

- Choose pasteurized dairy products – it must say “pasteurized” on the label.
- Choose tap water from a municipal source, or bottled water. Avoid water from a private well, unless boiled for one minute.
- Avoid buffets, salad bars, vegetable/raw fish sushi. Heat deli meats.
- Speak with your Doctor or Nurse Coordinator to find out if you are ready to eat out.

The USDA Food Safety for Transplant Recipients booklet can be found at:

[www.FDA.gov\(http://www.fda.gov/downloads/Food/ResourcesForYou/Consumers/SelectedHealthTopics/UCM312793.pdf\)](http://www.fda.gov/downloads/Food/ResourcesForYou/Consumers/SelectedHealthTopics/UCM312793.pdf)

Your team may advise you to take further steps to keep your food safe. This will depend on the type of transplant you have received, or the type of medicine you are taking. Follow the specific advice from your Doctor, Nurse Coordinator and/or Registered Dietitian.

Am I at risk for other health issues after transplant?

Yes, after transplant you may be more at risk for heart disease, high blood pressure, diabetes, kidney disease and excessive weight gain. See below for more information.

Heart Disease

Some medicines may cause your body to retain fluid. If this happens, your blood pressure may go up and your heart may be at risk. A diet low in salt, saturated fat, trans-fats and cholesterol can help keep your blood vessels healthy. This type of diet is also known as a “Heart Healthy Diet.”

Choose:

- Baked, broiled or grilled protein:
 - Poultry -- without skin
 - Fish
 - Lean pieces of beef and pork
- Microwaved, steamed, broiled or grilled vegetables, without added fat
- Whole grains.
- Low-fat or non-fat pasteurized dairy products
- Low-calorie snacks, such as, fruit, water-packed canned fruit, unsalted crackers/pretzels

Limit:

- Portion sizes
- Fatty and greasy food
- Whole eggs - up to 3-4 a week. Egg whites or pasteurized liquid egg products are a good choice and do not need to be limited.
- Salt – choose fresh or dried herbs and spices. Use lemon and vinegar to flavor, as well.
- Foods high in salt, such as, fast food, Chinese food, sauces, store-bought soups, processed meats, canned/frozen foods, fermented foods, salted snacks, nuts / seeds, condiments, pickles and olives.

Tip: Eat less than 2300 mg of sodium a day; do not add more than ¼ teaspoon of salt per day when cooking (¼ teaspoon salt = 575 mg sodium).

High blood sugar / Diabetes

Some medicines may put you at risk for diabetes. A healthy diet and limited intake of simple sugars can help prevent this and improve your blood sugar control.

These foods and drinks are high in simple sugars and should be limited or avoided:

- Sugar, honey, molasses, jam, jelly, syrup, marmalade and fruit in syrup
- Candy, chewing gum, ice cream, pudding, cake, cookies, pies, doughnuts, sherbets, fruit ice, regular gelatin or fruit yogurt.
- Sweetened condensed milk, sweetened mineral water.
- Fruit juice
- Regular soda

If you have high blood sugar, try these tips:

- Eat three balanced meals, spacing them evenly throughout the day
- Choose whole grains
- Eat protein and foods with fiber at each meal
- Reduce servings of bread, rice, pasta, legumes
- Limit fruit to 2-3 servings a day
- Choose fresh or water-packed canned fruit, without syrup or added sugar
- Read food labels: avoid foods with sugar, honey, sucrose, dextrose or corn syrup as the first or second ingredient

The guidelines above may be adjusted for individual needs based on body weight, changes in appetite and blood sugar levels.

Excessive weight gain

Your medicines may increase your appetite and cause weight gain. Use portion control and choose foods low in added fats and sugars. If approved by your Doctor, exercise regularly.

Are there other nutrition considerations I should know about?

A balanced and varied diet can meet all of your vitamin and mineral needs. Unless prescribed by your Doctor, do not take any vitamins, nutrition supplements or herbal products.

This information is brief and general. It should not be the only source of your information on this health care topic. It is not to be used or relied on for diagnosis or treatment. It does not take the place of instructions from your doctor. Talk to your health care providers before making a health care decision.