

Lung Transplant Nutrition

Good nutrition plays an important role in your recovery after transplant. You need the right amount of calories and protein for proper wound healing. Some side effects of the anti-rejection medications can also change the amount of nutrients you need. Your transplant team will tell you how to best meet your dietary needs.

If you have any questions,
please talk with your doctor.


Protein

Protein is essential for wound healing and recovery from transplant. Protein can also help overcome muscle breakdown that may come with using high-dose steroids. You should follow a **high-protein diet** after transplant unless otherwise instructed by your doctor or dietitian.

Examples of protein sources include:

- › Lean meat, poultry and seafood
- › Dairy products
- › Eggs
- › Beans and lentils
- › Seeds
- › Nuts and nut butters
- › High-protein grains such as quinoa
- › Soy products such as seitan, tofu, tempeh and edamame
- › Nutrition supplement drinks such as Ensure® or Boost®

When you eat protein foods, you store some of this protein in your blood.



However, you can only store enough for a limited part of the day. It is important to include a protein source with **every** meal and snack to meet your protein needs.

Carbohydrates

Carbohydrates give your body energy. But they also have the biggest impact on your blood glucose (blood sugar). These transplant medications can cause elevated blood glucose:

- › Cyclosporine®
- › Tacrolimus®
- › Prednisone®

If you have a history of diabetes or if you have been told your blood glucose levels have been high, follow these diet tips to manage your blood glucose.

- › Do not skip meals.
- › Eat 3 meals per day at regular, evenly spaced times.
- › Try to eat about the same amount of carbohydrates with each balanced meal.

Sources of nutrient-dense carbohydrates to include:

- › Whole grains such as brown rice, oatmeal and whole grain bread
- › Fruits
- › Starchy vegetables such as potatoes, corn and peas

Sources of carbohydrates to limit:

- › Desserts and sweets
- › Regular soft drinks
- › Juice

Sodium

Steroid medications can cause your body to hold on to extra fluid. To help, you should stay within the recommended limit of sodium (or salt) per day, which is 2,300 milligrams (mg).

Ways to limit sodium:

- › Read nutrition labels to stay under 2,300 mg of sodium per day.
- › Choose “low sodium” options if you eat packaged or processed foods.
- › Prepare food at home more often. More than 70% of the sodium Americans eat comes from packaged, prepared and restaurant foods.

High-sodium foods to limit
<ul style="list-style-type: none">• Canned soups• Processed meats (ham, bacon, sausage, cold cuts, pepperoni, smoked meats)• Canned foods (meat, cheese, vegetables)• Frozen meals• Pickled vegetables• Salted snacks (chips, pretzels, crackers)• Tomato and vegetable juices

Fluids

Make sure you drink enough fluids after your transplant. A general goal is 1 1/2 to 2 liters, or about 8 cups, of water per day depending on your size. Some of the transplant medications can stress your kidneys. Drinking enough water can help protect them. If you have questions about how much you should drink, talk with your clinician.

Calcium

You need calcium to maintain healthy bones. Steroids interfere with your ability to absorb calcium. Eat foods high in calcium.

- › Dairy
- › Beans
- › Leafy greens such as kale and spinach
- › Lentils
- › Sardines

Your clinician may ask you to take calcium supplements after your transplant. Your calcium intake from food and/or supplements should total 1,500 mg per day.

Medication interactions

Grapefruit/grapefruit juice and pomegranate/pomegranate juice can change the way your body absorbs your transplant medications. This can cause unsafe medication levels in your blood. Do not eat or drink these foods in any amount. Other foods can also affect the way your medications work if you eat them in large amounts. These include:

- › Green tea and herbal tea
- › Turmeric
- › Pomegranate/pomegranate juice

Talk with your clinician before starting or changing the way you eat these foods or any supplements that include them.

Food safety

The immunosuppressive medications that you need after your transplant weaken your immune system. This can make it harder to fight infections. It is important to take extra precautions to avoid getting sick. Do not eat foods at a high risk for foodborne illnesses.

High-risk foods to avoid	
Dairy	<ul style="list-style-type: none">• Unpasteurized milk, cheese or other dairy products• Cheeses from the deli (unless contained in a cooked dish)• Moldy cheeses including bleu cheese, Roquefort and gorgonzola
Meat/Fish/Eggs	<ul style="list-style-type: none">• Raw or undercooked meats• Meat or fish that was not cooked with heat including cold smoked fish, lox, pickled fish, sushi and ceviche (unless contained in a cooked dish)• Deli meats or cold cuts, unless heated until steaming• Runny egg yolks and foods that contain raw egg such as homemade Caesar salad dressing, homemade mayonnaise, hollandaise and raw cookie dough

High-risk foods to avoid	
Fruits and Vegetables	<ul style="list-style-type: none"> • Unwashed fruits and vegetables • Raw bean sprouts • Raw fruits and vegetables from restaurants • Precut fruits and vegetables from the store • Unpasteurized fruit and vegetable juices unless made from home using washed produce
Other	<ul style="list-style-type: none"> • Any foods from salad bars, buffets or street vendors • Food at social gatherings that has not been prepared safely or has been sitting out for more than 2 hours • Raw soy products • Any moldy or outdated food

Follow these food safety guidelines:

- › Wash your hands with warm, soapy water for 20 seconds before and after preparing food and before eating. Rinse your hands thoroughly with a clean, dry towel. Disposable paper towels are a good option.
- › When grocery shopping, pick up perishable foods last and go directly home.
- › Keep raw meat, poultry and seafood separate from all other foods. At home, keep raw meat at the bottom of the fridge.
- › Thaw meat, fish or poultry in the microwave or refrigerator. Do not thaw at room temperature. Use defrosted foods right away and do not refreeze them.
- › Always marinate food in the refrigerator. Do not use sauce that was used to marinate raw meat on cooked foods.
- › Never put cooked food back on the same plate that just held raw food.
- › Wash fruits and vegetables very well under running water before peeling or cutting. Do not wash produce with soap, detergent or chlorine bleach solution. Use a clean vegetable scrubber and replace it often.
- › Keep hot foods hot and cold foods cold. Refrigerate the leftovers within a maximum of 1 to 2 hours.
- › Make sure foods are cooked to a safe temperature. Use a food thermometer to check.

Minimum cooking temperatures	
Beef, veal, lamb chops, steaks, roasts	145 degrees F
Ground beef	160 degrees F
Fish	145 degrees F
Pork	145 degrees F
Egg dishes	160 degrees F
Turkey, chicken, duck	165 degrees F

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