

# STEPS TO GOOD NUTRITION AFTER KIDNEY TRANSPLANT

## PROTEIN

You need a high-protein diet for 4-6 weeks after your kidney transplant. Talk to your dietitian about your long-term protein needs.

### You need high-protein foods to:

- Heal from surgery
- Prevent infections
- Keep muscles and bones strong

### AIM FOR \_\_\_\_ SERVINGS OF HIGH PROTEIN FOODS EACH DAY

### One serving of a protein food is:

- 30 grams cooked meat, poultry, or seafood
- ¼ cup canned tuna or salmon
- 1 egg or 2 egg whites
- 30 grams pasteurized hard cheese
- ¼ cup low sodium cottage cheese
- 1 cup (250 ml) yogurt
- 1/3 cup (100 g) Greek yogurt
- 1 cup (250 ml) milk
- ¼ cup skim milk powder
- 1 cup (250 ml) fortified soy milk
- ¼ cup firm tofu
- ½ cup soft tofu
- ½ cup (125 ml) cooked beans, peas, or lentils
- 2 tablespoons (30 ml) nut butter
- ¼ cup unsalted nuts or seeds



**Choosing plant-based sources of protein, lean meats, and low-fat dairy over saturated fats can have a positive effect on your health.**



Your Dietitian: \_\_\_\_\_ Phone: \_\_\_\_\_  
This information is not meant to replace the medical counsel of your doctor.



## FOOD SAFETY

The immune suppressing medications that help your body accept your new kidney put you at higher risk of getting sick from food poisoning. Follow the suggestions below to help lower your chances of getting food poisoning.

### Choose foods wisely

- Buy cold or frozen food at the end of your shopping trip.
- Check the “use by”, “best before”, or “expiry” dates and discard if past due.
- Be cautious of salad bars, deli salads, and buffets.
- Avoid dented or bulging cans.

### Handle foods safely

- Avoid cross-contamination – keep raw meat, poultry, seafood, fish and their juices away from other foods. Use separate cutting boards and utensils.
- Refrigerate or freeze foods as soon as you are able.
- Wash hands and surfaces, including counters, sinks, and cutting boards thoroughly.
- Wash fruits and vegetables under cold running water, using a scrub brush if necessary.
- Cook food to safe internal temperatures (use a thermometer).
- Eat leftovers within 3-4 days.

### Thaw food safely

- Use the refrigerator or microwave for safe thawing of meat, fish and poultry.
- Cold water can be used for faster thawing. Place food in a leak-proof plastic bag and submerge in cold tap water, changing the water often.
- Do not refreeze thawed food.

### Symptoms of food poisoning may include: \*

- Nausea
- Vomiting
- Diarrhea
- Stomach cramping
- Fever
- Stomach pain

Serious cases can cause difficulty breathing or swallowing and paralysis. If you experience any of these symptoms contact your health care provider right away.

**When in doubt, throw it out**

Use the following list as a guide to avoid high-risk foods and to help you make the safer choice for alternatives.

Type of Food	High Risk (AVOID)	Lower Risk
<b>Dairy</b>	<ul style="list-style-type: none"> <li>• Raw or unpasteurized dairy products</li> <li>• Soft and semi-soft cheeses (e.g. camembert, brie, goat chèvre, havarti)</li> <li>• Blue-veined cheeses</li> </ul>	<ul style="list-style-type: none"> <li>• Pasteurized hard cheese (e.g. cheddar, parmesan)</li> <li>• Pasteurized milk</li> <li>• Pasteurized processed cheeses (e.g. cream cheese, cottage cheese)</li> <li>• Pasteurized dairy products that are cooked to a safe internal temperature (e.g. casserole, au gratin, quiche)</li> </ul>
<b>Meat</b>	<ul style="list-style-type: none"> <li>• Raw or undercooked meats or poultry (e.g. steak tartare, carpaccio)</li> <li>• Cold cut deli meat (e.g. bologna, roast beef, ham, prosciutto)</li> <li>• Unheated hot dogs</li> <li>• Refrigerated pâté and meat spreads</li> </ul>	<ul style="list-style-type: none"> <li>• Meat or poultry cooked to a minimum safe internal temperature</li> <li>• Deli meats and hot dogs heated to steaming hot or 74 °C</li> <li>• Dry cured meats (e.g. pepperoni, salami)</li> <li>• Pâté or meat spreads sold in cans</li> </ul>
<b>Seafood</b>	<ul style="list-style-type: none"> <li>• Raw seafood/fish (e.g. oysters, sashimi, sushi, ceviche)</li> <li>• Undercooked fish/seafood</li> <li>• Refrigerated seafood (e.g. cocktail shrimp, smoked salmon)</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked or canned fish and seafood</li> <li>• Clams, oysters and mussels cooked until shell opens</li> <li>• Seafood cooked to a safe internal temperature of 74 °C</li> </ul>
<b>Eggs</b>	<ul style="list-style-type: none"> <li>• Raw or lightly cooked eggs or egg products (e.g. over easy eggs, soft poached eggs, cookie dough, cake batter, some dressings and desserts)</li> </ul>	<ul style="list-style-type: none"> <li>• Fully cooked eggs with no runny yolks</li> <li>• Egg dishes cooked to safe internal temperature of 74 °C</li> <li>• Shelf stable dressings and sauces</li> </ul>
<b>Fruits and Vegetables</b>	<ul style="list-style-type: none"> <li>• Raw sprouts (e.g. alfalfa, bean sprouts)</li> <li>• Unpasteurized fruit juices and cider</li> </ul>	<ul style="list-style-type: none"> <li>• Thoroughly cooked sprouts</li> <li>• Pasteurized fruit juices and ciders</li> <li>• Unpasteurized fruit juice and cider that is brought to a rolling boil and cooled</li> </ul>

\*Above information adapted from *Safe Food Handling for Immunocompromised Individuals* (Health Canada)

## FLUID

**Drink at least 8 cups (2.0 litres) of fluid each day.**

At least half of your fluid should be water. Fluid is important for good kidney function.

Ask your transplant team before using alcoholic beverages.

## PHOSPHORUS

**Your phosphorus may be low after kidney transplant.**

Phosphorus is found in high amounts in the protein foods listed on page 1.

Some foods especially high in phosphorus include:

- Fish and meat
- Canned fish with bones
- Tofu
- Dairy products
- Beans and lentils
- Nuts and seeds
- Whole grains, bran and oats

## POTASSIUM

**Your potassium may be low, normal or high in the early period after kidney transplant.**

Follow the guidelines of your dietitian.

## MAGNESIUM

**Your magnesium may be low after kidney transplant.** Eat magnesium rich foods such as:

- whole grains (e.g. oats, barley, whole grain bread, brown rice)
- Dark green vegetables
- Beans, peas, or lentils
- Nuts and seeds (e.g. hemp or pumpkin seeds)
- Soy products (e.g. tofu, edamame, soy milk)
- Salmon, mackerel, pollock

## SALT

**It is recommended that you follow a low salt diet.**

Limit processed and convenience food and cook at home more often. Cook with herbs and spices to add flavour. Some people may need more or less salt than this; follow the instructions of your transplant team.

## BONE HEALTH

You need **calcium** and **vitamin D** to keep your bones healthy.

You need:     At least 600-1000 IU of vitamin D each day  
                  1000-1200 mg of calcium each day

### **Eat 2-3 servings of foods high in calcium each day**

Some foods rich in calcium Include:

- Milk
- Yogurt
- Pasteurized hard cheese
- Fortified plant milk
- Firm tofu made with calcium
- Canned salmon with bones
- Canned sardines
- Almonds/almond butter
- Sesame seed paste (tahini)
- Beans

## NUTRITION AND HERBAL SUPPLEMENTS AND YOUR MEDICATIONS

**Vitamins, minerals and nutrient supplements** should not be taken within two hours of your transplant medications. Most people can meet their vitamin and mineral needs from their diet. Talk to your dietitian before starting any new vitamins or nutrition supplements.

### **Check with the transplant team before taking any herbal or nutrition products.**

These products may:

- Harm your kidney or your health
- Stop your medications from doing their job
- Make your immune system too strong

**X** **Avoid** grapefruit, Seville orange, pomelo, star fruit and their juices. These fruits may interact with your transplant medications.

Some herbal teas and herbal products may interact with your transplant medications; check with your dietitian or pharmacist before starting any tea or supplements.

## HEALTHY HABITS

A healthy and balanced diet will reduce the chances of infections and other complications.

Over time, cholesterol levels, blood sugar, and blood pressure can be affected by your transplant medications. A nutritious diet is a key part of preventing and managing chronic diseases and reducing damage to your kidney.

In addition to a nutritious diet that is sustainable and enjoyable, managing stress, sleeping well, and making time for joyful movement will increase health, strength, and energy. Ask your medical team what activities are safe for you.

Please speak with your dietitian if you have any nutrition or diet concerns or questions.