

## NUTRITION AND FOOD SAFETY

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### Medications, Recreational Substances and Supplements

Many medications and supplements can interact with your transplant medications. This can cause you to feel unwell and can even lead to severe problems including the loss of your transplanted organ. **Any time you plan to change, start, or stop a medication, please call the transplant office and ask to speak to your coordinator.**

In general, we do not recommend ANY **herbal supplements** after transplant. There are a few reasons for this:

- Manufacturers are not required to prove an herbal product is effective or safe.
- Herbal products are not standardized. You may get different amounts of the ingredients in each bottle of an herbal product, even if it is the same manufacturer.
- There is often little information on how herbal supplements interact with transplant medications. Without knowing if a supplement may hurt you, we would recommend that you do not use it.

Some of your transplant medications can cause your body to lose vitamins and minerals. Based upon your routine blood work, your transplant team may ask you to take more or less vitamins and/or supplements. While most vitamins and minerals are safe to take, please do not take them unless approved by your transplant team.

### Food

Most foods and drinks are completely safe for you to take after transplant. Please **AVOID grapefruit, pomegranate, pomelo, blood orange, and black licorice**, as these can increase the amount of anti-rejection medication in your body and this could harm you. Marijuana in any form can increase drug levels of your rejection medications and should never be used. Some spices in large amounts may effect drug levels, such as ginger and turmeric.

### **NEVER take medications or supplements without calling the transplant office**

This includes herbals, homeopathic products, vitamins, and minerals.

This includes medications prescribed by anyone that is not a part of the transplant team.

**Do NOT TAKE foods that contain: pomegranate, pomelo, grapefruit, black licorice, marijuana, and marijuana derived products (which included CBD oil and hemp seeds).**



## NUTRITION AND FOOD SAFETY

### Food Safety



**KEEP YOUR FAMILY SAFE FROM FOOD POISONING**

Immunosuppressive medications are important, as they protect your transplanted organ. A side effect of these medications is that they leave you more susceptible to developing foodborne illness from raw or undercooked foods. After transplant you must be careful when handling, preparing, and consuming foods.

Four Basic Steps to Food Safety:

1. Clean: Wash hands and surfaces often
2. Separate: Separate raw meats from other foods
3. Cook: Cook to safe temperature
4. Chill: Refrigerate promptly

#### SAFE EATING TIPS:

- ✓ Ensure all food is properly cooked
- ✓ Do NOT eat any raw or undercooked meats, proteins, dairy or egg products; this includes sushi, raw cookie dough/cake batter, over-easy eggs
- ✓ Reheat all leftovers
- ✓ Microwave or cook all lunch meats
- ✓ Avoid buffets
- ✓ Do not use wooden cutting boards
- ✓ Use separate cutting boards/utensils for raw meats
- ✓ Make sure all products are pasteurized
- ✓ Wash all fruits and vegetables thoroughly
- ✓ Only eat at safe, clean, trusted restaurants
- ✓ Do not eat food that has been sitting out or exposed to direct sunlight, such as at picnics

SAFE COOKING TEMPERATURES	
as measured with a food thermometer	
<b>GROUND MEAT &amp; MEAT MIXTURES</b>	Internal temperature
Beef, Pork, Veal, Lamb	160 °F
Turkey, Chicken	165 °F
<b>FRESH BEEF, PORK, VEAL &amp; LAMB</b>	145 °F
with a 3 minute rest time	
<b>POULTRY</b>	
Chicken & Turkey, Whole	165 °F
Poultry Parts	165 °F
Duck & Goose	165 °F
Stuffing (cooked alone or in bird)	165 °F
<b>HAM</b>	
Fresh (raw)	160 °F
Pre-cooked (to reheat)	140 °F
<b>EGGS &amp; EGG DISHES</b>	
Eggs	Cook until yolk & white are firm
Egg Dishes	160 °F
<b>SEAFOOD</b>	
Fin Fish	145 °F
or flesh is opaque and separates easily with fork	
Shrimp, Lobster & Crabs	Flesh pearly & opaque
Clams, Oysters & Mussels	Shells open during cooking
Scallops	Milky white or opaque & firm
<b>LEFTOVERS &amp; CASSEROLES</b>	165 °F

Please refer to [Food Safety for Transplant Recipients: A need-to-know guide for bone marrow and solid organ transplant recipients](https://www.fda.gov/downloads/Food/FoodborneIllnessContaminants/UCM312793.pdf) for more information.

<https://www.fda.gov/downloads/Food/FoodborneIllnessContaminants/UCM312793.pdf>

For more information on food safety, food outbreaks as well as general food safety recommendations:

<http://www.foodsafety.gov/~dms/lmrisk5.html>.

## NUTRITION AND FOOD SAFETY

Type of Food	AVOID	SAFE
<b>Meat and Poultry</b>	<ul style="list-style-type: none"> <li>• Raw or undercooked meat or poultry</li> </ul>	<ul style="list-style-type: none"> <li>• Meat or poultry cooked to a safe minimum internal temperature</li> <li>*Use a meat thermometer to check the internal temperature of food</li> </ul>
<b>Seafood</b>	<ul style="list-style-type: none"> <li>• Any raw or undercooked fish, or shellfish, or food containing raw or undercooked seafood e.g., sashimi, found in some sushi or ceviche. Refrigerated smoked fish</li> <li>• Partially cooked seafood, such as shrimp and crab</li> </ul>	<ul style="list-style-type: none"> <li>• Previously cooked seafood heated to 165 °F</li> <li>• Canned fish and seafood</li> <li>• Seafood cooked to 145 °F</li> </ul>
<b>Milk</b>	<ul style="list-style-type: none"> <li>• Unpasteurized (raw) milk</li> </ul>	<ul style="list-style-type: none"> <li>• Pasteurized milk</li> </ul>
<b>Eggs</b>	<p>Foods that contain raw/under cooked eggs, such as:</p> <ul style="list-style-type: none"> <li>• Homemade Caesar salad dressings*</li> <li>• Homemade raw cookie dough*</li> <li>• Homemade eggnog</li> </ul>	<p><i>At home:</i></p> <ul style="list-style-type: none"> <li>• Use pasteurized eggs/egg products when preparing recipes that call for raw or under cooked eggs</li> </ul> <p><i>When eating out:</i></p> <ul style="list-style-type: none"> <li>• Ask if pasteurized eggs were used and yolks cooked</li> </ul> <p>*Most pre-made foods from grocery stores, such as Caesar dressing, pre-made cookie dough, or packaged eggnog are made with pasteurized eggs</p>
<b>Sprouts</b>	<ul style="list-style-type: none"> <li>• Raw sprouts (alfalfa, bean, or any other sprout)</li> </ul>	<ul style="list-style-type: none"> <li>• Cooked sprouts</li> </ul>
<b>Vegetables</b>	<ul style="list-style-type: none"> <li>• Unwashed fresh vegetables, including lettuce/salads</li> </ul>	<ul style="list-style-type: none"> <li>• Washed fresh vegetables, including salads</li> <li>• Cooked vegetables</li> </ul>
<b>Cheese</b>	<ul style="list-style-type: none"> <li>• Soft cheeses made from unpasteurized (raw) milk, such as: <ul style="list-style-type: none"> <li>— Feta</li> <li>— Brie</li> <li>— Camembert</li> <li>— Blue-veined</li> <li>— Queso fresco</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Hard cheeses</li> <li>• Processed cheeses</li> <li>• Cream cheese</li> <li>• Mozzarella</li> <li>• Soft cheeses that are clearly labeled “made from pasteurized milk”</li> </ul>
<b>Hot Dogs and Deli Meats</b>	<ul style="list-style-type: none"> <li>• Hot dogs, deli meats, and luncheon meats that have not been reheated</li> </ul>	<ul style="list-style-type: none"> <li>• Hot dogs, luncheon meats, and deli meats reheated to steaming hot or 165 °F</li> <li>*Reheat hot dogs, deli meats before eating them.</li> </ul>
<b>Pâtés</b>	<ul style="list-style-type: none"> <li>• Unpasteurized, refrigerated pâtés or meat spreads</li> </ul>	<ul style="list-style-type: none"> <li>• Canned or shelf-stable pâtés or meat spreads</li> </ul>

## HEALTHY NUTRITION

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A healthy diet is just as important after lung transplant as it was before transplant. The focus after transplant centers around providing adequate calories and nutrients for wound healing and getting you back on your feet as quickly as possible. As you heal, recommendations may change. After the first few months, you may need to make adjustments to your diet. You, along with a dietitian, will come up with health goals and an eating plan that will keep you safe and meets your specific nutritional needs.

Your diet immediately following surgery:

1. **Eat higher amounts of protein** to help with wound healing. Extra protein may also be needed to help prevent muscle breakdown related to high doses of steroids.

Protein rich foods:

- ✓ Fish, poultry, beef, lamb, pork
- ✓ Nuts and seeds
- ✓ Dairy products, eggs
- ✓ Soy products, legumes or lentils

2. Reduce sodium if you have fluid retention or high blood pressure.

Limit your intake of:

- ✓ Canned Soups
- ✓ Processed meats/lunch meats
- ✓ Frozen entrees
- ✓ Convenience and processed foods
- ✓ Condiments
- ✓ Fast Foods

3. Eat a variety of different foods to ensure you get adequate nutrients for recovery.
4. **Limit simple carbohydrates** to manage elevated blood sugars (can be worse on prednisone)
5. **Watch potassium levels.** You may need to limit intake of potassium rich foods because of elevated potassium level due to cyclosporine or tacrolimus. Diuretics used to help manage fluid retention, may lower potassium. A list of foods high and low in potassium is on the next page.

### **Achieve or Maintain Healthy Body Weight**

Increased hunger due to long-term steroid use, lack of exercise, fluid retention, and poor eating habits can lead to unwanted weight gain. It is important that you maintain or achieve a healthy weight to reduce the risk of developing diseases associated with being overweight. Speak with your transplant dietitian about strategies to help you reach your healthy weight.

Keys to weight management:

1. Portion control
2. Choose whole grains, beans, lean meats, vegetables, fruit and low fat dairy products.
3. Drink plenty of water
4. Limit foods high in sugar, simple carbohydrates and calories.
5. Establish an exercise regimen after talking with transplant team.

In addition to weight gain, post-transplant medications can put you at risk for diabetes, heart disease, and bone disease. These conditions are discussed later in the book (*see page 63*).

**Foods High in Potassium**

Potassium is important in maintaining a healthy heart, nerves, and muscles. High potassium levels, a condition known as hyperkalemia, can be caused by dehydration, kidney disease, and medications. Low potassium levels, or hypokalemia, can be caused by vomiting, diarrhea, dehydration, and medications

HIGH	MODERATE	LOW
<b>FRUITS</b>		
Apricots, avocados, bananas, figs, dates, raisins, prunes, orange juice, coconut water, mango, papaya	Apples, pears, blackberries, cherries, peaches, cantaloupe, oranges, nectarines, kiwi, honeydew, strawberries, pineapple	Applesauce, blueberries, cranberries/juice
<b>VEGETABLES</b>		
Pumpkin, white & sweet potatoes, rutabaga, winter squash, lentils, tomato juice/sauce, vegetable broth, dried beans, peas, spinach	Asparagus, broccoli, Brussel sprouts, cabbage, corn, kale, cauliflower, collard greens, cucumber, green pepper, mushrooms, peas, chili pepper, okra, chili pepper, okra, onion,	Carrots, green beans
<b>MEAT/CHEESE/STARCH</b>		
	Walnuts, pecans, almonds, peanuts, cashews, bran, whole grains	Cereal, pasta, mayonnaise, noodles, bread, butter, margarine, cream, salad dressing
<b>OTHER</b>		
Salt substitute	Chocolate, cocoa, coconut, milk, ice cream, molasses	Jam, jelly, cake, cookies, soda, coffee, tea, sugar substitute

**Foods High in Calcium**

Calcium is a mineral that your body uses to help muscle movement and build strong bones and teeth. High calcium levels can be caused by kidney disease, and some medications. Low calcium levels is common because most adults do not get enough dairy in their diet. It can be caused by medications, kidney disease, and low vitamin-D levels.

Molasses  
 Bok choy  
 Broccoli  
 Canned salmon  
 Canned sardines  
 Cheeses  
 Collard greens  
 Dairy products  
 Enriched bread

Legumes  
 Tofu  
 Nuts  
 Okra  
 Pinto beans  
 Spinach  
 Yogurt  
 Calcium fortified cereals  
 Calcium fortified orange juice



**Foods High in Iron**

Iron is used by red blood cells to carry oxygen to your body. If your body does not have enough iron, your red blood cells cannot carry oxygen efficiently, and you can feel tired. Low iron is common. Meats have the best source of digestible iron.



Fortified cereals  
 Whole grain or enriched breads  
 Lentil  
 Baked potato with skin  
 Beans  
 Clams  
 Eggs

Fish  
 Kale  
 Liver and organ meats  
 Mustard greens  
 Oysters  
 Spinach  
 Pumpkin seeds  
 Firm tofu

**Foods High in Magnesium**

Magnesium is a mineral that helps to regulate your muscles, nerves, and heart. Low magnesium levels can be caused by decreased absorption, diarrhea, and some transplant medications; and may make you feel weak.

Cereals: bran flakes, oatmeal  
 Nuts & seeds  
 Broccoli  
 Peas and beans  
 Green leafy vegetables  
 Avocado  
 Brown Rice

Milk  
 Beef  
 Fish  
 Prunes  
 Soybeans  
 Firm tofu  
 Spinach



**Foods High in Sodium**

Sodium is used by the body to help control fluid balance, if you have too much, you can get swelling or high blood pressure. Most canned, pre-prepared foods, snacks, and restaurant meals are too high in sodium and you may be eating too much salt even if you don't add salt to your food. Check nutrition labels to become aware of the sodium in the food you eat low sodium levels can be caused by too much water intake, as well as medications.

- Most restaurant food
- Fast food
- Smoked, cured, salted meat
- Deli meats
- Frozen dinners
- Canned vegetables and beans
- Canned soups
- Salted nuts
- Cheese
- Olives
- Pickles
- Pasta Sauces
- Soy Sauce
- Marinades and salad dressing



Practice Reading a Nutrition Label: Worksheets

It can be difficult to keep track of all the calories, sodium, cholesterol and carbohydrates in your diet. Nutrition Labels can help you! Use the following questions to review and practice how to use nutrition labels.

1. How many calories would you take in if you ate the whole box of crackers in one sitting? \_\_\_\_\_
2. If you ate 2 servings of crackers, how many grams of carbohydrates would you get? \_\_\_\_\_
3. If each gram of carbohydrates provides 4 calories, how many calories would you take in by eating 2 servings of crackers? \_\_\_\_\_
4. If fat provides 9 calories per gram, how many calories would you get by eating 2 servings? \_\_\_\_\_

Nutrition Facts	
Serving Size 2 crackers (14 g)	
Servings Per Container About 21	
Amount Per Serving	
<b>Calories</b> 60	Calories from Fat 15
% Daily Value*	
<b>Total Fat</b> 1.5g	2%
<b>Saturated Fat</b> 0g	0%
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 70mg	3%
<b>Total Carbohydrate</b> 10g	3%
<b>Dietary Fiber</b> Less than 1g	3%
<b>Sugars</b> 0g	
Protein 2g	
<b>Vitamin A</b> 0%	<b>Vitamin C</b> 0%
<b>Calcium</b> 0%	<b>Iron</b> 2%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

Chicken Noodle Soup	
Nutrition Facts	
Serving Size 1/2 cup (120 ml) condensed soup	
Servings Per Container about 2.5	
Amount Per Serving	
<b>Calories</b> 60	Calories from Fat 15
% Daily Value*	
<b>Total Fat</b> 1.5g	2%
<b>Saturated Fat</b> 0.5g	3%
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 15mg	
<b>Sodium</b> 890gm	37%
<b>Total Carbohydrate</b> 8g	3%
<b>Dietary Fiber</b> 1g	4%
<b>Sugars</b> 1g	
<b>Protein</b> 3g	
<b>Vitamin A</b> 4%	<b>Calcium</b> 0%
<b>Vitamin C</b> 0%	<b>Iron</b> 2%
*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2000 2500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400m 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

5. If you were to eat the entire can of soup, how much sodium would you consume? \_\_\_\_\_
6. If the recommended amount of sodium for someone with high blood pressure is 1500 mg/day, how much more than the recommended amount is present in this entire can?  
\_\_\_\_\_
7. How many servings of soup would I need to consume 20% of my daily requirement of fiber? \_\_\_\_\_
8. How many calories would that be? \_\_\_\_\_



Answers to nutrition label sheet:

1.  $60 \times 21 = 1206$  calories
2. 20 gram carbs
3. and 4. 80 calories from carbs and 27 calories from fat (2 serving  $\times 1.5\text{gm/serv} \times 9\text{cal/gm}$ )
5.  $890 \text{ mg sodium/serving} \times 2.5 \text{ serving/can} = 2225 \text{ mg sodium}$
6.  $2225 - 1500 = 725 \text{ mg more than recommended amount}$
7. If 1 serving has 4 %, 5 servings needed for 20% fiber requirement
8.  $60 \text{ cal/serv} \times 5 \text{ servings} = 300 \text{ calories}$

## STRATEGIES FOR SAFE LIVING

Your anti-rejection medicines may leave you vulnerable to infections. Infections that might have caused minor symptoms prior to transplant, can quickly become more serious after transplant. It is important to follow the recommendations below to keep you healthy and have a good quality of life. They are adapted from the American Society of Transplantation, and represent expert guidance.

### ALWAYS wash hands with soap and water

- ✓ Before preparing food and before eating
- ✓ Before and after touching wounds (even if gloves are used), secretions, body fluids, airways
- ✓ After touching or cleaning up after pets and animals
- ✓ After touching items that touch human or animal feces, (e.g., bedpans, diapers, toilets)
- ✓ You should ask other household members to change diapers or litter boxes but if it is unavoidable, than please wash hands afterwards
- ✓ Hand sanitizers are safe to use if you don't suspect diarrhea



### Prevention of Respiratory Infections

- ✓ **Wear a mask.** Keep with you at all times, to use in clinic and hospital areas, and anytime you are in a crowded areas, especially during cold /flu season (October to April).
- ✓ **Always wash your hands,** particularly before touching your nose, mouth and eyes

#### Wear a Mask

#### Always Wash your Hands

#### Avoid people that may have colds or infections

### AVOID

- ✓ **Persons with colds** or respiratory infections.
  - If you cannot avoid contact with the infected person, wear a mask.
- ✓ **Crowded indoor areas,** especially during months 1-6 or if you are on high dose prednisone.
  - This includes: shopping malls, subways, airport waiting areas. Try going to stores and restaurants at off peak times, or using the airport lounge for a quiet place to rest.
- ✓ **ALL tobacco smoke,** including secondhand smoke. Smoke puts your lungs at risk for infections.
- ✓ **Fireplaces** and fire pits; wear a mask if unable to avoid.
- ✓ **Marijuana smoke:** it can carry mold infections to any patient nearby.
- ✓ **People with known tuberculosis** or who are at risk for tuberculosis.
  - This includes working in prisons, jails, homeless shelters etc.



## AVOID

- ✓ **Jobs with a high infection risk**, such as animal care settings, construction, gardening, landscaping, farming, and working with young children under age of 5 (preschools etc.).
  - If you are thinking any of these jobs, please discuss with your transplant team.
- ✓ **Home remodeling**, construction sites, excavations, or other dusty environments
  - There may be a high risk of invasive mold.
- ✓ **Gardening, mulching, and raking** leaves due to risk of mold.
  - Cutting grass is usually fine but you should wear a mask. A “N95 “mask is recommended; if wearing a surgical mask change it every 20 minutes.

If you can't avoid exposure to any of the above, please wear masks and reach out to your transplant team for further advice.

**We do NOT recommend body piercings, and tattoos** because they require a break in the skin, which can lead to infection as well. Self-piercing or tattooing or sharing of needles should be avoided at all costs.

## WATER SAFETY

- City tap water is considered safe unless there is a “boil water” advisory
- Avoid drinking well water in areas that are not screened regularly
- If using a water filter, use a filter with the lab NSF 53 or 58 plus cyst reduction/removal
- Standing water in the home or basement, such as with flooding, should be cleaned up immediately to avoid mold and other infections.

**Someone other than the transplant patient should perform the cleaning.** If you cannot avoid exposure, please call the transplant office to determine if you need other preventative treatment. If you have had past water damage, live in a flood zone or have known mildew/mold in your home, please let the transplant team know prior to transplant so that we can consider preventive medications.



### DO NOT:

- Drink water from lakes or rivers because of the risk of bacteria
- Swim in water that is not chlorinated; do not swallow water during swimming
- Use hot tubs at any time
- Use public pools/waterparks for 2 weeks if you have had diarrhea

### Animal Contact and Pet Safety

Many of our patients have pets. You can stay healthy and safe by following the following guidelines:

- Keep pets healthy by feeding them food that is not contaminated or spoiled, and seeking veterinary help at the first signs of illness. DO NOT give your pet a raw food diet.
- Wait for 1 year after transplant to get a new pet.
- Wash hands carefully after handling pets.
- Kennel cough is a live vaccine, placed in the nose of the dog – avoid contact with your dog during this vaccination.
- **Avoid:**
  - Cleaning litter boxes, and handling animal feces. Wear gloves to clean aquariums or have someone else in household do the cleaning.
  - Animals that have diarrhea
  - Stray animals
  - Animal bites and scratches
  - Indoor birds, chicks and ducklings due to risk of bird feather related lung disease
  - Reptiles (snakes, iguanas, lizards and turtles); they have a high risk of *Salmonella*

### CALL THE TRANSPLANT OFFICE if:

- If you get ANY animal bites, scratches
- You have a dog that gets kennel cough
- You think you may have an illness from an animal exposure
- Questions related to any animals not mentioned above



### TRAVEL SAFETY

Many of our patients enjoy traveling. **We recommend that you wait 6 months to 1 year (for international trips) before flying.** Travel plans should be discussed with the transplant team at least 2 months before the trip, so we can personalize recommendations for your health. All items discussed above apply for safe living during travel.

Before travel, we advise you to develop a health care plan in the case of a medical emergency. This includes:

- Knowing the closest transplant hospital
- Traveling with your current medication list
- Extra supply of medications
- Contacting your transplant team with any concerns

For international travel:

- Please see a travel clinic for any necessary vaccines or preventative medications 2 months before your trip.
- Review any travel advisories on the Centers for Disease Control and Prevention website, [www.cdc.gov](http://www.cdc.gov).
- When traveling to countries with poor sanitation, DO NOT drink tap water, ice cubes, or from soda fountains.
- On cruises, try to eat food that is made fresh-to-order. Avoid buffets and any food that has been sitting out.

### Hopkins Travel Health Program

Telephone: 410-955-8931

Fax: 410-614-2301

Email: [travelmedicine@jhmi.edu](mailto:travelmedicine@jhmi.edu)

## Sports and Recreation

As your breathing improves, you may find that you are physically able to do things that were previously limited by your breathing. Take things gradually in the first 3 months, and remember not to push/pull/lift more than 10 pounds in the first 12 weeks. Eventually, many patients get back to all their favorite sports and strenuous activities.

- ✓ Discuss with your transplant team before:
  - Hunting
  - Fishing
  - Scuba diving
  - Camping
  - Spelunking
- ✓ **NEVER** clean any wildlife caught while hunting/fishing.



## Precautions to Prevent West Nile Virus, ZIKA and Other Mosquito-borne Infections

Transplant recipients should avoid going out at dawn or dusk during peak mosquito season and should use effective insect repellents that contain DEET. Sources of standing water should be removed from yards and property belonging to transplant recipients.

## SEXUAL ACTIVITY AND FAMILY PLANNING

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- Sexual intercourse can be resumed when your incision is fully healed and you feel up to it, approximately 12 weeks after surgery.
- You may need to use positions that decrease the strain or pressure on your incision. Pain is the best indicator that there is too much weight on your incision.
- Immunosuppressant medications may increase your risk of sexually transmitted diseases (STDs) and other infections. If you are not in a monogamous relationship, use of a latex condom is recommended to reduce your risk of getting an infection during intercourse.
- Pregnancy is not recommended because the medication regimen can be harmful to the developing baby, and the stress of pregnancy can be harmful to your health after transplant. Female patients should discuss birth control methods with their women's health provider.
- Male patients may have difficulty with erections post-transplant due to medications. In most cases this can be treated, and can be discussed with your primary care provider.
- If you desire to have children after transplant, there are other options such as adoption or surrogacy, which can be explored. Harvesting of embryos is permitted post-transplant.

### Safe Sexual Practices:

- Always use latex condoms outside of monogamous relationships
- Avoid exposure to feces during sexual activity
- Oral sex is okay in a monogamous relationship
- Please use some form of birth control if you are sexually active



### Call the transplant team if you have:

- ✓ Signs of infection in the genital area, such as rash, itching, unusual discharge, or sores
- ✓ A positive pregnancy test or if you suspect you are pregnant