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Renal Failure Diet

**What is a renal failure diet?**

* Renal (kidney) failure means that your kidneys are not able to get rid of all the wastes from your blood. These wastes come from the foods you eat and the liquids you drink. Renal failure is also known as chronic kidney disease or chronic renal failure. Renal failure usually happens slowly over time. Some people eventually have total renal failure (end-stage renal failure) and need dialysis treatments. Dialysis treatments remove extra wastes from your blood with a dialysis machine when your kidneys cannot do this job. Renal failure may happen because of diabetes, high blood pressure or other health problems.
* A renal failure diet controls the amount of protein and phosphorus (FOS-for-us) in your diet. You may also have to limit the amount of sodium in your diet. Following a renal failure diet can help decrease the amount of wastes made by your body. It can also help your kidneys work better, which may delay total renal failure.
* Your diet may change over time as your health condition changes. You may also need to make other diet changes if you have other health problems. These health problems may include diabetes, heart disease, high blood pressure or other health conditions.

**What can I do to make a renal failure diet part of my lifestyle?**

Changing what you eat and drink may be hard at first. You may need to make these changes part of your daily routine. Following a renal failure diet may help you feel better.

* Choose a variety of items on this diet to avoid getting tired of having the same items every day. Keep a list of items allowed on this diet in your kitchen to remind you about the diet.
* Carry a list of items allowed on this diet to remind you about the diet when you are away from home. Tell your family or friends about this diet so that they can remind you about the diet.
* Ask your caregiver, a dietitian, or a nutritionist any questions you may have about your diet plan. A dietitian or nutritionist works with you to find the right diet plan for you.

**What kind of changes do I have to make while on a renal failure diet?**

* **Protein:** You will need to limit the amount of protein in your diet. This will help decrease the wastes in your blood, helping your kidneys to work better. Foods that are high in protein are meat, poultry (chicken), fish, eggs, and dairy products (milk, cheese, yogurt). Your caregiver will tell you how much protein to eat each day.
* **Phosphorus:** You will need to limit the amount of phosphorus in your diet. When you have kidney failure, your kidneys cannot get rid of extra phosphorus that builds up in your blood. This may cause calcium to leave your bones and make them weak. Foods that are high in phosphorus are dairy products, beans, peas and nuts. It is also found in liquids such as cocoa, beer and cola drinks. Your caregiver will tell you how much phosphorus you should have in your diet each day.
* **Sodium:** You may have to limit the amount of sodium in your diet if you have certain health problems. These may include high blood pressure or extra fluid in your body. Your caregiver will tell you how much sodium you should have each day. Table salt, canned foods, processed meats like deli meats and sausage, soups and salted snacks are high in sodium. You may have to limit high sodium foods and table salt in your diet.
* **Potassium:** Usually, you do not need to limit the amount of potassium in your diet. However, you may need to limit potassium if you have too much potassium in your blood. Your caregiver will tell you if your blood levels of potassium are too high. Potassium is found in fruits and vegetables. You may have to limit fruits and vegetables that are high in potassium.

**What can I eat and drink while on a renal failure diet?**

Ask your caregiver how much potassium, phosphorus, sodium, liquid and protein you need in your diet. The food list below can help you plan your meals.

**Milk and dairy products:**

The following servings of food have four grams of protein, 120 calories, 80 mg of sodium, 185 mg of potassium, and 110 mg of phosphorus.

* One half of a cup of milk (fat free, low-fat, whole, buttermilk, or chocolate milk).
* One-half of a cup of ice milk or ice cream.
* One-half of a cup of plain or fruit-flavored yogurt.
* **Nondairy milk substitutes:** These foods have one-half of a gram of protein, 140 calories, 40 mg of sodium, 80 mg of potassium, and 30 mg of phosphorus.
	+ One-half of a cup of nondairy frozen dessert, or nondairy frozen dessert topping.
	+ One-half of a cup of nondairy creamer.

**Meat and meat substitutes:**

These foods have 7 grams of protein, 65 calories, 25 mg of sodium, 100 mg of potassium, and 65 mg of phosphorus. **Do not use salt when preparing these foods.**

* One ounce of beef, such as round, sirloin, T-bone, porterhouse steak, rib, ground beef or ground chuck.
* One ounce of pork such as fresh ham, tenderloin, chops, loin roasts, or cutlets.
* One ounce of lambchops, legs, or roasts.
* One ounce of poultry, such as chicken, turkey, Cornish hen, domestic duck, or goose.
* One ounce of any fresh and frozen fish.
* One ounce of lobster, scallops, shrimp, or clams.
* One and one-half ounces of crab or oysters.
* One ounce of canned tuna, unsalted canned salmon, or unsalted sardines.
* One large whole egg, or two large egg whites or yolks.
* One-fourth of a cup of low-cholesterol egg product.
* **The following meats and cheese are high in sodium. This means that they have 100-300 mg of sodium in a serving. You may need to avoid eating the following meats:**
	+ One ounce of deli-style roast beef, boiled or deli-style ham, or deli-style chicken or turkey.
	+ One ounce of canned salmon or sardines.
	+ One-fourth of a cup of cottage cheese.
* **The following meats and cheese are high in sodium, phosphorus, or saturated fat. These foods should be avoided in your diet:**
	+ All cheeses except cottage cheese.
	+ Frankfurters, bratwurst, Polish sausage, and bacon.
	+ Lunch meats including bologna, liverwurst, picnic loaf, salami, summer sausage.

**Starches:**

These foods have 2 grams of protein, 90 calories, 80 mg of sodium, 35 mg of potassium, and 35 mg of phosphorus.

* **Breads and rolls:**
	+ One slice of bread (French, Italian, raisin, light rye, or sourdough white).
	+ One-half of a hamburger or hot dog bun.
	+ One-half of a small Danish pastry or sweet roll, without nuts.
	+ One small dinner roll or hard roll.
	+ One-half of an English muffin, or one-half of a small bagel.
	+ One small bran or whole wheat muffin, without nuts.
	+ One-half of a six-inch pancake, or one small waffle. (These foods are high in phosphorus and sodium.)
	+ Two, six inch corn or flour tortillas.
* **Cereals and grains:**
	+ Three-fourths of a cup of most brands of ready-to-eat cereal. (Some cereals are high in sodium).
	+ Two cups of puffed rice.
	+ One-half of a cup of cream of rice, cream of wheat, farina, or cooked grits.
	+ One-third of a cup of oat bran or oat meal.
	+ One-half of a cup of cooked pasta such as noodles, macaroni, or spaghetti.
	+ One-half of a cup of cooked brown or white rice.
* **Crackers and snacks:**
	+ Four saltine or round butter crackers.
	+ Four graham crackers.
	+ One and one-half cup of plain popped popcorn.
	+ Nine tortilla chips. (This equals three-fourths of an ounce.)
	+ One-fourth of an ounce of sticks or ring pretzels. (Salted pretzels are high in sodium.)
* **Desserts:**
	+ Two inch square, or one and one-half ounces of cake.
	+ Four sandwich cookies. (These cookies are high in sodium and phosphorus).
	+ Ten vanilla wafers.
	+ One-eighth of an apple, berry, cherry, or peach fruit pie.
	+ One-half of a cup of sweetened gelatin.
* **The following are starches that are high in low-quality protein and phosphorus.** Do not eat these foods often. If you do eat them, eat only small amounts.
	+ Bran cereal or muffins, granola cereal or bars.
	+ Boxed, frozen, or canned meals, entrees (main courses), or side dishes.
	+ Pumpernickel, dark rye, whole-wheat or oatmeal breads.
	+ Whole-wheat crackers or cereals.

**Vegetables:**

These foods have 1 gram of protein, 25 calories, 15 mg of sodium, and 20 mg of phosphorus. The amount of sodium listed is for vegetables that are canned or prepared with no added salt. One serving is one-half cup, unless another amount is given.

* **Low potassium (0-100 mg):**
	+ One cup of alfalfa sprouts.
	+ Green or wax beans, and bean sprouts.
	+ Raw cabbage.
	+ Peeled cucumber.
	+ All varieties of lettuce (one cup).
	+ One green, sweet pepper.
* **Medium potassium (101-200 mg):**
	+ Five spears of asparagus.
	+ Broccoli, cauliflower, eggplant, and onions.
	+ One small raw carrot, or one stalk of raw celery.
	+ One-half of a cup, or one-half of an ear of corn.
	+ Fresh and canned mushrooms. (Mushrooms have 40 mg of phosphorus or more, per serving.)
	+ Green or snow peas. (Peas have 40 mg of phosphorus or more, per serving.)
	+ Raw spinach.
	+ Summer squash.
* **High potassium (201-350 mg):**
	+ Artichoke, or cooked celery.
	+ One-fourth of a whole avocado.
	+ One chili pepper.
	+ Unsalted or regular vegetable juice cocktail. (Regular vegetable juice cocktail is high in sodium.)
	+ Unsalted or regular tomato juice. (Regular tomato juice is high in sodium.)
	+ One-fourth of a cup of tomato sauce.
	+ One medium tomato.
* **High potassium (201-350 mg) and more than 40 mg of phosphorus:**
	+ Brussels sprouts or okra.
	+ Potato, boiled, mashed.
	+ Two tablespoons of tomato paste.
	+ Fresh, cooked mushrooms.
	+ Winter squash.
* **Very high potassium (more than 350 mg):**
	+ Hash browned potato.
	+ Sweet potato. (Sweet potatoes have 40 mg of phosphorus or more, per serving.)
	+ One-fourth of a cup of beet greens.
	+ One-half of a medium baked potato.
	+ One ounce of potato chips (one ounce equals about 14 chips).
	+ Cooked spinach. (Cooked spinach has 40 mg of phosphorus or more, per serving.)

**Fruits:**

These foods have one-half gram of protein, 70 calories, and 15 mg of phosphorus. Each serving is one-half cup, unless another amount is given.

* **Low potassium (0-100 mg):**
	+ Applesauce.
	+ Blueberries.
	+ One cup of cranberries or cranberry juice cocktail.
	+ Canned pears.
	+ Grape juice.
* **Medium potassium (101-200 mg):**
	+ One small apple (two and one-half inches across) or apple juice.
	+ One fresh peach (two inches across).
	+ Sweet or sour cherries.
	+ Canned or fresh pineapple or fruit cocktail.
	+ Grapes, strawberries, mango, or watermelon.
	+ One-half of a small grapefruit, or grapefruit juice.
	+ One tangerine (two and one-half inches across).
* **High potassium (201-350 mg):**
	+ One cup of canned or fresh apricots or five dried apricots.
	+ One small nectarine (two inches across).
	+ One-half of a cup of orange juice, or one small orange.
	+ One-eighth of a small cantaloupe.
	+ One-fourth of cup of dates or two whole dried figs.
	+ One medium fresh pear.
	+ One-eighth of a small honeydew melon.
* **Very high potassium (more than 350 mg):**
	+ One-half of a medium banana.
	+ Prune juice, dried prunes, or canned prunes.

**Fats:**

These foods have very little protein, 45 calories, 55 milligrams of sodium, 10 milligrams of potassium, and five milligrams of phosphorus.

* **Unsaturated fats:**
	+ One teaspoon margarine or one tablespoon reduced calorie margarine.
	+ One teaspoon mayonnaise or one tablespoon low-calorie mayonnaise.
	+ One teaspoon oil: safflower, sunflower, corn, soybean, olive, peanut, canola.
	+ One tablespoon oil-type salad dressing or two tablespoons mayonnaise-type salad dressing.
	+ Two tablespoons low-calorie salad dressing (mayonnaise-type and oil-type).
	+ One and one-half teaspoons tartar sauce.
* **Saturated fats:**
	+ One teaspoon butter.
	+ Two tablespoons coconut.
	+ One tablespoon powdered coffee whitener.
	+ One teaspoon solid shortening.

**High-calorie foods:**

These foods have very little protein, 100 calories, 15 milligrams of sodium, 20 milligrams of potassium, and five milligrams of phosphorus.

* **Liquids: (Be sure to include these liquids when adding up the amount of liquids allowed for a day.)**
	+ One cup soda-type liquid: fruit flavors, root beer, colas (high sodium).
	+ One cup fruit-flavored drink, limeade, or lemonade.
	+ One cup cranberry juice cocktail.
	+ One-half cup wine.
* **Frozen deserts: (Be sure to include these liquids when adding up the amount of liquids allowed for a day.)**
	+ One-half of a fruit ice bar.
	+ One juice bar (three ounce).
	+ One-half cup sorbet.
* **Candy and sweets:**
	+ Four pieces of hard candy.
	+ Ten jelly beans.
	+ Two fruit rolls.
	+ One-fourth cup of cranberry sauce or relish.
	+ Five large marshmallows.
	+ Two tablespoons brown or white sugar, marmalade, jam or jelly, syrup, or honey.
* **Special low-protein foods:**
	+ One-half cup of low-protein gelled dessert.
	+ One slice of low-protein bread.
	+ Two low-protein cookies.
	+ One-half cup of low-protein pasta.

**Salty foods:**

These foods have 250 mg of sodium.

* One-eighth of a teaspoon of seasoned salt such as onion or garlic salt.
* Two tablespoons of barbecue sauce.
* One and one-half tablespoons of ketchup.
* One and one-half tablespoons of chili sauce.
* One-sixth of a large dill pickle.
* Four teaspoons of mustard.
* Two medium green olives or three large black olives.
* One-fourth of a teaspoon of soy sauce.
* Two and one-half teaspoons of steak sauce.
* One and one-fourth teaspoons of teriyaki sauce.

**What other dietary guidelines should I follow?**

* You may need to take a vitamin and mineral supplement (such as calcium). Take only the supplement that your caregiver suggests.
* You may need to stop using salt substitutes as they also contain potassium. Regularly using salt substitutes may cause the potassium levels in your blood to become too high.
* Ask your caregiver if you should make other diet changes because of other health problems you have.
* Read the nutrition information on food labels when shopping. This information may also help you to follow the renal failure diet. Ask your caregiver for information on reading food labels.

**Risks:**

* The renal failure diet may take some time for you to learn to follow. If you do not eat enough food, your body may not get the calories, protein, and other nutrients that your body needs. Talk to your caregiver if you do not understand the renal failure diet or if you are having trouble following the diet.
* Not following a renal failure diet may cause your kidneys to work harder, which may cause total renal failure to happen sooner. If you have total renal failure, you will need to get dialysis treatments. Dialysis treatments remove extra wastes from your blood with a dialysis machine when your kidneys cannot do this job.

**Care Agreement**

You have the right to help plan your care. To help with this plan, you must learn about your diet. You can then discuss treatment options with your caregivers. Work with them to decide what care may be used to treat you. You always have the right to refuse treatment.

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