

Client Name _____ Date _____

RDN/NDTR _____

Email _____ Phone _____

Heart-Healthy Consistent Carbohydrate Nutrition Therapy

A heart-healthy and consistent carbohydrate diet is recommended to manage heart disease and diabetes.

To follow a heart-healthy and consistent carbohydrate diet,

- Eat a balanced diet with whole grains, fruits and vegetables, and lean protein sources.
- Choose heart-healthy unsaturated fats. Limit saturated fats, *trans* fats, and cholesterol intake. Eat more plant-based or vegetarian meals using beans and soy foods for protein.
- Eat whole, unprocessed foods to limit the amount of sodium (salt) you eat.
- Choose a consistent amount of carbohydrate at each meal and snack. Limit refined carbohydrates especially sugar, sweets and sugar-sweetened beverages.
- If you drink alcohol, do so in moderation: one serving per day (women) and two servings per day (men).
 - One serving is equivalent to 12 ounces beer, 5 ounces wine, or 1.5 ounces distilled spirits

Tips for Choosing Heart-Healthy Fats

Choose lean protein and low-fat dairy foods to reduce saturated fat intake.

- Saturated fat is usually found in animal-based protein and is associated with certain health risks. Saturated fat is the biggest contributor to raise low-density lipoprotein (LDL) cholesterol levels. Research shows that limiting saturated fat lowers unhealthy cholesterol levels. Eat no more than 7% of your total calories each day from saturated fat. Ask your RDN to help you determine how much saturated fat is right for you.
- There are many foods that do not contain large amounts of saturated fats. Swapping these foods to replace foods high in saturated fats will help you limit the saturated fat you eat and improve your cholesterol levels. You can also try eating more plant-based or vegetarian meals.

Instead of...	Try:
Whole milk, cheese, yogurt, and ice cream	1% or skim milk, low-fat cheese, non-fat yogurt, and low-fat ice cream
Fatty, marbled beef and pork	Lean beef, pork, or venison
Poultry with skin	Poultry without skin
Butter, stick margarine	Reduced-fat, whipped, or liquid spreads
Coconut oil, palm oil	Liquid vegetable oils: corn, canola, olive, soybean and safflower oils

Avoid foods that contain *trans* fats.

- *Trans* fats increase levels of LDL-cholesterol. Hydrogenated fat in processed foods is the main source of *trans* fats in foods.
- *Trans* fats can be found in stick margarine, shortening, processed sweets, baked goods, some fried foods, and packaged foods made with hydrogenated oils. Avoid foods with “partially hydrogenated oil” on the ingredient list such as: cookies, pastries, baked goods, biscuits, crackers, microwave popcorn, and frozen dinners.

Choose foods with heart healthy fats.

- Polyunsaturated and monounsaturated fat are unsaturated fats that may help lower your blood cholesterol level when used in place of saturated fat in your diet.
- Ask your RDN about taking a dietary supplement with plant sterols and stanols to help lower your cholesterol level.
- Research shows that substituting saturated fats with unsaturated fats is beneficial to cholesterol levels. Try these easy swaps:

Instead of...	Try:
Butter, stick margarine, or solid shortening	Reduced-fat, whipped, or liquid spreads
Beef, pork, or poultry with skin	Fish and seafood
Chips, crackers, snack foods	Raw or unsalted nuts and seeds or nut butters Hummus with vegetables Avocado on toast
Coconut oil, palm oil	Liquid vegetable oils: corn, canola, olive, soybean and safflower oils

Limit the amount of cholesterol you eat to less than 200 milligrams per day.

- Cholesterol is a substance carried through the bloodstream via lipoproteins, which are known as “transporters” of fat. Some body functions need cholesterol to work properly, but too much cholesterol in the bloodstream can damage arteries and build up blood vessel linings (which can lead to heart attack and stroke). You should eat **less than 200 milligrams cholesterol per day**.
- People respond differently to eating cholesterol. There is no test available right now that can figure out which people will respond more to dietary cholesterol and which will respond less. For individuals with high intake of dietary cholesterol, different types of increase (none, small, moderate, large) in LDL-cholesterol levels are all possible.
- Food sources of cholesterol include egg yolks and organ meats such as liver, gizzards. Limit egg yolks to two to four per week and avoid organ meats like liver and gizzards to control cholesterol intake.

Tips for Choosing Heart-Healthy Carbohydrates

Consume a consistent amount of carbohydrate

- It is important to eat foods with carbohydrates in moderation because they impact your blood glucose level. Carbohydrates can be found in many foods such as:
 - Grains (breads, crackers, rice, pasta, and cereals)
 - Starchy Vegetables (potatoes, corn, and peas)
 - Beans and legumes
 - Milk, soy milk, and yogurt
 - Fruit and fruit juice
 - Sweets (cakes, cookies, ice cream, jam and jelly)
- Your RDN will help you set a goal for how many carbohydrate servings to eat at your meals and snacks. For many adults, eating 3 to 5 servings of carbohydrate foods at each meal and 1 or 2 carbohydrate servings for each snack works well.
- Check your blood glucose level regularly. It can tell you if you need to adjust when you eat carbohydrates.

Choose foods rich in viscous (soluble) fiber

- Viscous, or soluble, fiber is found in the walls of plant cells. Viscous fiber is found only in plant-based foods. Eating foods with fiber helps to lower your unhealthy cholesterol and keep your blood glucose in range.
 - Rich sources of viscous fiber include vegetables (asparagus, Brussels sprouts, sweet potatoes, turnips) fruit (apricots, mangoes, oranges), legumes, and whole grains (barley, oats, and oat bran).
- As you increase your fiber intake gradually, also increase the amount of water you drink. This will help prevent constipation.
- If you have difficulty achieving this goal, ask your RDN about fiber laxatives. Choose fiber supplements made with viscous fibers such as psyllium seed husks or methylcellulose to help lower unhealthy cholesterol.

Limit refined carbohydrates

- There are three types of carbohydrates: starches, sugar, and fiber. Some carbohydrates occur naturally in food, like the starches in rice or corn or the sugars in fruits and milk. Refined carbohydrates—foods with high amounts of simple sugars—can raise triglyceride levels. High triglyceride levels are associated with coronary heart disease.
- Some examples of refined carbohydrate foods are table sugar, sweets, and beverages sweetened with added sugar.

Tips for Reducing Sodium (Salt)

Although sodium is important for your body to function, too much sodium can be harmful for people with high blood pressure. As sodium and fluid buildup in your tissues and bloodstream, your blood pressure increases. High blood pressure may cause damage to other organs and increase your risk for a stroke.

Even if you take a pill for blood pressure or a water pill (diuretic) to remove fluid, it is still important to have less salt in your diet. Ask your doctor and RDN what amount of sodium is right for you.

- Avoid processed foods. Eat more fresh foods.
 - Fresh fruits and vegetables are naturally low in sodium, as well as frozen vegetables and fruits that have no added juices or sauces.
 - Fresh meats are lower in sodium than processed meats, such as bacon, sausage, and hotdogs. Read the nutrition label or ask your butcher to help you find a fresh meat that is low in sodium.
- Eat less salt—at the table and when cooking.
 - A single teaspoon of table salt has 2,300 mg of sodium.
 - Leave the salt out of recipes for pasta, casseroles, and soups.
 - Ask your RDN how to cook your favorite recipes without sodium
- Be a smart shopper.
 - Look for food packages that say “salt-free” or “sodium-free.” These items contain less than 5 milligrams of sodium per serving.
 - “Very low-sodium” products contain less than 35 milligrams of sodium per serving.
 - “Low-sodium” products contain less than 140 milligrams of sodium per serving.
 - Beware of “Unsalted” or “No Added Salt” products. These items may still be high in sodium. Check the nutrition label.
- Add flavors to your food without adding sodium.
 - Try lemon juice, lime juice, fruit juice or vinegar.
 - Dry or fresh herbs add flavor. Try basil, bay leaf, dill, rosemary, parsley, sage, dry mustard, nutmeg, thyme, and paprika.
 - Pepper, red pepper flakes, and cayenne pepper can add spice to your meals without adding sodium. Hot sauce contains sodium, but if you use just a drop or two, it will not add up to much.
 - Buy a sodium-free seasoning blend or make your own at home.

Additional Lifestyle Tips

Achieve and maintain a healthy weight.

- Talk with your RDN or your doctor about what is a healthy weight for you.
- Set goals to reach and maintain that weight.
- To lose weight, reduce your calorie intake along with increasing your physical activity. A weight loss of 10 to 15 pounds could reduce LDL-cholesterol by 5 milligrams per deciliter.

Participate in physical activity.

- Talk with your health care team to find out what types of physical activity are best for you. Set a plan to get about 30 minutes of exercise on most days.

Foods Recommended

Food Group	Foods Recommended
Grains	Whole grain breads and cereals, including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown or wild rice, sorghum, and oats Pasta, especially whole wheat or other whole grain types Brown rice, quinoa or wild rice Whole grain crackers, bread, rolls, pitas Home-made bread with reduced-sodium baking soda
Protein Foods	Lean cuts of beef and pork (loin, leg, round, extra lean hamburger) Skinless poultry Fish Venison and other wild game Dried beans and peas Nuts and nut butters Meat alternatives made with soy or textured vegetable protein Egg whites or egg substitute Cold cuts made with lean meat or soy protein
Dairy	Nonfat (skim), low-fat, or 1%-fat milk Nonfat or low-fat yogurt or cottage cheese Fat-free and low-fat cheese
Vegetables	Fresh, frozen, or canned vegetables without added fat or salt
Fruits	Fresh, frozen, canned, or dried fruit
Oils	Unsaturated oils (corn, olive, peanut, soy, sunflower, canola) Soft or liquid margarines and vegetable oil spreads Salad dressings Seeds and nuts Avocado

Foods Not Recommended

Food Group	Foods Not Recommended
Grains	<p>Breads or crackers topped with salt</p> <p>Cereals (hot or cold) with more than 300 mg sodium per serving</p> <p>Biscuits, cornbread, and other “quick” breads prepared with baking soda</p> <p>Bread crumbs or stuffing mix from a store</p> <p>High-fat bakery products, such as doughnuts, biscuits, croissants, danish pastries, pies, cookies</p> <p>Instant cooking foods to which you add hot water and stir—potatoes, noodles, rice, etc.</p> <p>Packaged starchy foods—seasoned noodle or rice dishes, stuffing mix, macaroni and cheese dinner</p> <p>Snacks made with partially hydrogenated oils, including chips, cheese puffs, snack mixes, regular crackers, butter-flavored popcorn</p>
Protein Foods	<p>Higher-fat cuts of meats (ribs, t-bone steak, regular hamburger)</p> <p>Bacon, sausage, or hot dogs</p> <p>Cold cuts, such as salami or bologna, deli meats, cured meats, corned beef</p> <p>Organ meats (liver, brains, gizzards, sweetbreads)</p> <p>Poultry with skin</p> <p>Fried or smoked meat, poultry, and fish</p> <p>Whole eggs and egg yolks (more than 2-4 per week)</p> <p>Salted legumes, nuts, seeds, or nut/seed butters</p> <p>Meat alternatives with high levels of sodium (>300 mg per serving) or saturated fat (>5 g per serving)</p>
Dairy	<p>Whole milk, 2% fat milk, buttermilk</p> <p>Whole milk yogurt or ice cream</p> <p>Cream</p> <p>Half-&-half</p> <p>Cream cheese</p> <p>Sour cream</p> <p>Cheese</p>
Vegetables	<p>Canned or frozen vegetables with salt, fresh vegetables prepared with salt, butter, cheese, or cream sauce</p> <p>Fried vegetables</p> <p>Pickled vegetables such as olives, pickles, or sauerkraut</p>
Fruits	<p>Fried fruits</p> <p>Fruits served with butter or cream</p>
Oils	<p>Butter, stick margarine, shortening</p> <p>Partially hydrogenated oils or <i>trans</i> fats</p> <p>Tropical oils (coconut, palm, palm kernel oils)</p>
Other	<p>Candy, sugar sweetened soft drinks and desserts</p> <p>Salt, sea salt, garlic salt, and seasoning mixes containing salt</p> <p>Bouillon cubes</p> <p>Ketchup, barbecue sauce, Worcestershire sauce, soy sauce, teriyaki sauce</p> <p>Miso</p> <p>Salsa</p> <p>Pickles, olives, relish</p>

Heart-Healthy Eating Sample 1-Day Menu

Meal	Menu
Breakfast	1 cup oatmeal (2 carbohydrate servings) 3/4 cup blueberries (1 carbohydrate serving) 1 ounce unsalted almonds 1 cup skim milk (1 carbohydrate serving) 1 cup brewed coffee
Morning Snack	1 cup sugar-free nonfat yogurt (1 carbohydrate serving)
Lunch	2 slices whole wheat bread (2 carbohydrate servings) 2 ounces lean turkey breast 1 ounce low-fat Swiss cheese 1 teaspoon mustard 1 sliced tomato 1 lettuce leaf 1 small pear (1 carbohydrate serving) 1 cup skim milk (1 carbohydrate serving)
Afternoon Snack	1 ounce trail mix with unsalted nuts, seeds, and raisins (1.5 carbohydrate serving)
Dinner	3 to 4 ounces broiled salmon 2/3 cup brown rice (2 carbohydrate servings) 1 teaspoon soft margarine 1 cup cooked broccoli with 1/2 cup carrots (1 carbohydrate serving) 1 cup salad 1 teaspoon olive oil and vinegar dressing 1 small whole grain roll (1 carbohydrate serving) 1 teaspoon soft margarine 1 cup tea
Evening Snack	1 extra-small banana (1 carbohydrate serving)

Notes:

Sample Meal Plan

Use this form to develop an individualized meal plan.

Meal	Menu
Breakfast	
Lunch	
Dinner	
Snack	

Notes: