

Dietary Guidelines for *Diabetic Dyslipidemia*

Diabetes can alter your blood lipid profile and put you at greater risk of cardiovascular disease. Diabetic dyslipidemia is characterized by low levels of HDL ("good" cholesterol), and high triglycerides (a type of fat), as well as an elevation in a harmful form of LDL ("bad" cholesterol). This combination has been associated with a high risk of developing cardiovascular disease. As cardiovascular disease is the leading cause of death in people with type 2 diabetes, it is important that you properly control your diabetes using diet and medication in order to reduce your risk.

Know your Lipids

Triglycerides are the most common fat molecule in our bodies. High levels of insulin (seen in Type 2 diabetes) stimulates the body to produce more triglycerides.

LDL (low-density lipoprotein): "Bad" cholesterol. Contributes to plaque build-up in your blood vessels, which can cause heart attack. Higher levels of LDL in the blood can increase risk of cardiovascular disease

HDL (high-density lipoprotein): "Good" cholesterol. HDL helps remove bad cholesterol from the blood for excretion. Higher levels of HDL can decrease your risk of cardiovascular disease.

General Guidelines for Healthy Living

Aim for at least 150 min/ week moderate-vigorous intensity physical activity. Include muscle and bone strengthening exercise at least twice a week. *Physical activity raises HDL and reduces insulin resistance*

Do not smoke, avoid second-hand smoke. *Smoking is associated with higher triglycerides*

Improved glycemic control reduces the risk of diabetes -related complications

Set realistic goals for yourself

Make changes gradually. This will help facilitate Long-term changes

Get Active! Be more physically active by trying out these activities:

Walk or bike to work or the store. Take the stairs instead of the elevator

Go for a round of golf and walk instead of riding in the cart, carry your own clubs

Sign up for a dance class

Go swimming

Chores: raking leaves, house cleaning, and mowing the lawn

Get your family involved and plan fun, active family activities!



Healthy Eating with Diabetic Dyslipidemia

- A Mediterranean-style diet that emphasizes intake of fruits, vegetables, fish, and olive oil and limits meats, saturated fats, and refined carbohydrates has been shown to have beneficial effects in diabetics with dyslipidemia
- Consume carbohydrates from whole grains, fruits, vegetables, and low-fat dairy products
 - ◊ Consuming low glycemic index foods and foods high in fibre may help reduce hyperglycemia
- Decrease consumption of saturated and trans fats and replace with unsaturated fats and lean protein sources
- Avoid alcohol, limit intake to no more than two drinks a day for men and one drink a day for women
- Incorporating 1-2 g/day of plant sterols from fortified products (such as juices and margarines) has been shown to reduce levels of LDL cholesterol

Eat <i>More</i> Often	Eat <i>Less</i> Often
Whole grains: Oats, whole grain bread, quinoa, corn	Refined carbohydrates: White bread, ready-to-eat cereals, fruit juices with added sugar, commercial baked goods
Sources of omega-3 fatty acids: Fish (salmon, tuna, mackerel, herring), flaxseed, nuts, soybean oil, canola oil	Trans-fat. Often found in commercial baked goods, hard margarines ("partially hydrogenated vegetable oil")
Unsaturated fat: olive, canola, safflower, sunflower, soybean, and corn oils	Saturated fats: Butter, lard, shortening, coconut oil, palm oil Fried foods (chips, French fries, donuts, etc.)
Low fat dairy products	Full fat dairy products
Low glycemic index foods: parboiled/converted rice, whole grains, legumes	High glycemic index foods: white rice, white bread, potatoes
Lean sources of protein: fish, soy protein (tofu), legumes, lean meats	Fatty cuts of meat: chicken with skin, organ meats, bacon, rib eye, New York strip, skirt steak
Plant sterols from fortified margarines or juice (e.g. MinuteMaid "Heartwise" Orange Juice, Becel "Pro.activ" margarine)	Animal sources of cholesterol: egg yolks, red meat, shrimp, squid, bacon, organ meats

