Diabetes Discourse

Volume 13, Issue 2 **February 2023**

Quarterly Newsletter of the Bovell Cancer Diabetes Foundation (BCDF)

This Free Newsletter is a Vital Resource for Diabetes Prevention and for anyone Living with Diabetes

Our Vision

Enriching lives, one person at a time

Our Mission

- To enrich the lives of people living with or at risk for cancer and diabetes by providing financial resources, support, preventive and management education.

BCDF Activities Include:

- Modest grants to individuals/families affected by cancer or diabetes to enhance their quality of life
- Prevention and management education, and small-group workshops
- Advocacy and referrals to resources for individuals/families affected by cancer or diabetes
- Writing grant proposals and fundraising

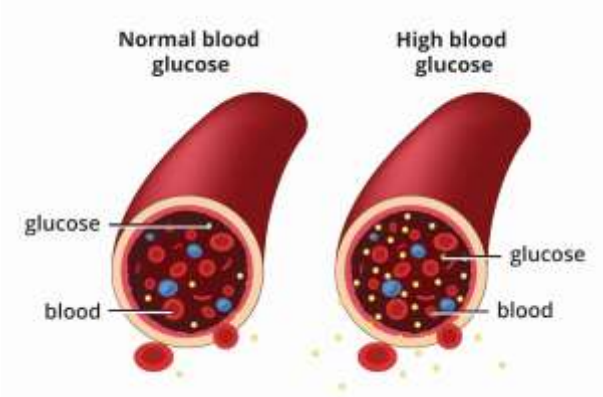
BCDF relies on donations to carry out its mission. We are an incorporated, charitable Foundation in the Republic of Trinidad and Tobago. BCDF functions with volunteers only and no paid staff. To contact us with comments, questions or articles, phone 868) 667-2576 or e-mail: adelia@bovellcancerdiabetesfoundation.org; http://www.bovellcancerdiabetesfoundation.org

Disclaimer: *This newsletter is meant to educate and inform. It is not to be used as medical advice. Please consult your doctor for medical advice.*

Inside This Issue

Donate to BCDF to Help Stamp out Diabetes!

DIABETES PRIMER



Source: https://www.niddk.nih.gov/health-information/diabetes/overview/what-is-diabetes

What Is Diabetes?

Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Glucose is your body's main source of energy. Your body can make glucose, but glucose also comes from the food you eat. Insulin is a hormone made by the pancreas that helps glucose get into your cells to be used for energy. If you have diabetes, your body does not make enough—or any—insulin or does not use insulin properly. Glucose then stays in your blood and does not reach your cells. Diabetes raises the risk for damage to the eyes, kidneys, nerves, and heart. Diabetes is also linked to some types of cancer. Taking steps to prevent or manage diabetes may lower your risk of developing diabetes health problems. *Go to page 3*

KNOW ABOUT THE A1C TEST

The A1C test—also known as the hemoglobin A1C or HbA1c test—is a simple blood test that measures your average blood sugar levels over the past 3 months. It is one of the commonly used tests to diagnose prediabetes and diabetes and is also the main test to help you and your health care team manage your diabetes. Higher A1C levels are linked to diabetes complications, so reaching and maintaining your individual A1C goal is really important if you have diabetes.

What Does the A1C Test Measure?

When sugar enters your bloodstream, it attaches to hemoglobin, a protein in your red blood cells. Everybody has some sugar attached to their hemoglobin, but people with higher blood sugar levels have more. The A1C test measures the percentage of your red blood cells that have sugar-coated hemoglobin.

Who Should Get an A1C Test, and When?

Testing for diabetes or prediabetes:
Get a baseline A1C test if you are an adult over age 45—or if you are under 45, are overweight, and have one or more risk factors for prediabetes or type 2 diabetes. If your result is normal but you are over 45, have risk factors, or have ever had gestational diabetes, repeat the A1C test every 3 years. If your result shows you have prediabetes, talk to your doctor about taking steps now to improve your health and lower your risk for type 2 diabetes. Repeat the A1C test as often as your doctor recommends, usually every 1 to 2 years. If you do not have symptoms but your result shows you have prediabetes or diabetes, get a second test on a different day to confirm the result. If your test shows you have diabetes, ask your doctor to refer you to diabetes self-management education and support services so you can have the best start in managing your diabetes.

Managing diabetes:

If you have diabetes, get an A1C test at least twice a year, more often if your medicine changes or if you have other health conditions. Ask your doctor how often is right for you.

Your A1C Result

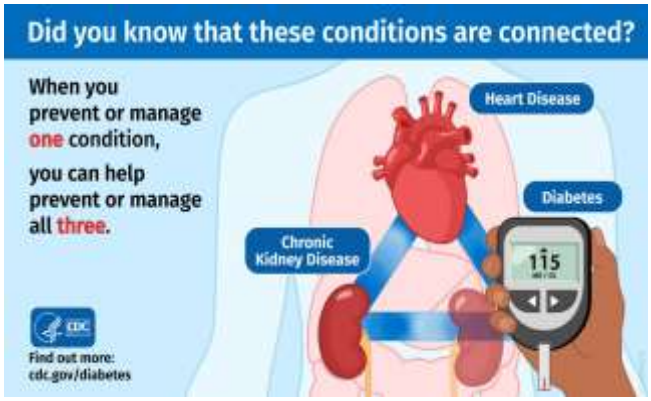
Diagnosing Prediabetes or Diabetes

Normal	Below 5.7%
Prediabetes	5.7% to 6.4%
Diabetes	6.5% or above

Get your A1C tested in addition to—not instead of—regular blood sugar self-testing if you have diabetes.

Reprinted from: https://www.cdc.gov/diabetes/managing/managing-blood-sugar/a1c.html#

DID YOU KNOW?



Donating to BCDF helps to Stamp out Diabetes?

Donate To BCDF!

LET'S TALK CANCER WITH…

Dr. Liselle Bovell

Inspirational Cancer Quotes

Nip symptoms in the bud

- Tell the oncologist promptly about pain, nausea, vomiting, numbness, or tingling. Symptoms gather steam like a boulder rolling down a hill; the doctor can help 'stop it at the top.

'Chemo brain' is real

- We now know chemotherapy affects short-term memory, which triggers great anxiety. Remind your loved one to stay in the moment by breathing deeply. Relaxing the mind will ease memory retrieval. Games like chess and Sudoku can also exercise the mental muscles.

Do not stress about diet

- A healthy lifestyle is key, but so is quality of life. Is a vegan diet, OK? No problem, as long as nutritional needs are met. Cannot live without sweets? No need to; just focus on a balanced diet. Is meat safe to eat? It may well be (as long as you do not overdo red meat), check with your oncologist.

Reprinted from: https://parade.com/702895/clevelandclinic/9-ways-to-support-a-friend-through-cancer/

DIABETES PRIMER… CONT'D

Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high.

What are the different types of diabetes?

The most common types of diabetes are: Type 1, Type 2, and gestational diabetes.

Type 1 diabetes

If you have type 1 diabetes, your body makes little or no insulin. Your immune system attacks and destroys the cells in your pancreas that make insulin. Type 1 diabetes is usually diagnosed in children and young adults, although it can appear at any age. People with type 1 diabetes need to take insulin every day to stay alive.

Type 2 diabetes

If you have type 2 diabetes, the cells in your body do not use insulin properly. The pancreas may be making insulin but is not making enough insulin to keep your blood glucose level in the normal range. Type 2 diabetes is the most common type of diabetes. You are more likely to develop type 2 diabetes if you have risk factors, such as overweight or obesity, and a family history of the disease. You can develop type 2 diabetes at any age, even during childhood. You can help delay or prevent type 2 diabetes by knowing the risk factors and taking steps toward a healthier lifestyle, such as losing weight or preventing weight gain.

Gestational diabetes

Gestational diabetes is a type of diabetes that develops during pregnancy. Most of the time, this type of diabetes goes away after the baby is born. However, if you have had gestational diabetes, you have a higher chance of developing type 2 diabetes later in life. Sometimes diabetes diagnosed during pregnancy is type 2 diabetes.

Prediabetes

People with prediabetes have blood glucose

levels that are higher than normal but not high enough to be diagnosed with type 2 diabetes. If you have prediabetes, you have a higher risk of developing type 2 diabetes in the future. You also have a higher risk for heart disease than people with normal glucose levels.

Other types of diabetes

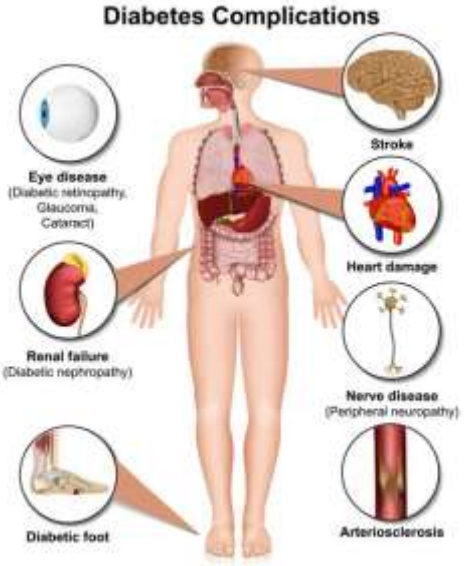
A less common type of diabetes, called monogenic diabetes, is caused by a change in a single gene. Diabetes can also come from having surgery to remove the pancreas, or from damage to the pancreas due to conditions such as cystic fibrosis.

How Common Is Diabetes

Recent data have shown that 14.8% of Trinidad and Tobago's adult population are living with diabetes. Totally, 148,900 adults in Trinidad and Tobago have diabetes. About 90% to 95% of diabetes cases are type 2 diabetes.

What other health problems can people with diabetes develop?

Over time, high blood glucose can damage most of your organs. If you have diabetes, take steps to lower your chances of developing diabetes health problems. Learn how to improve your health and manage the disease.



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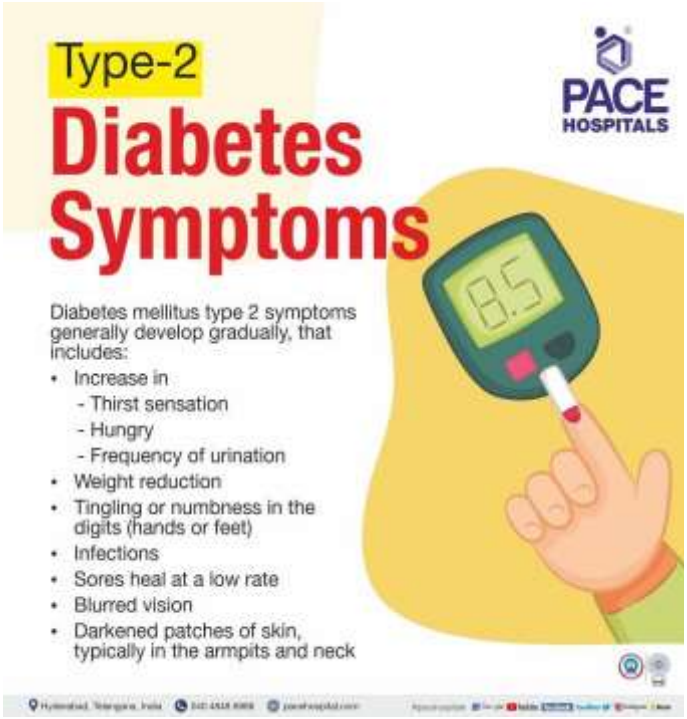
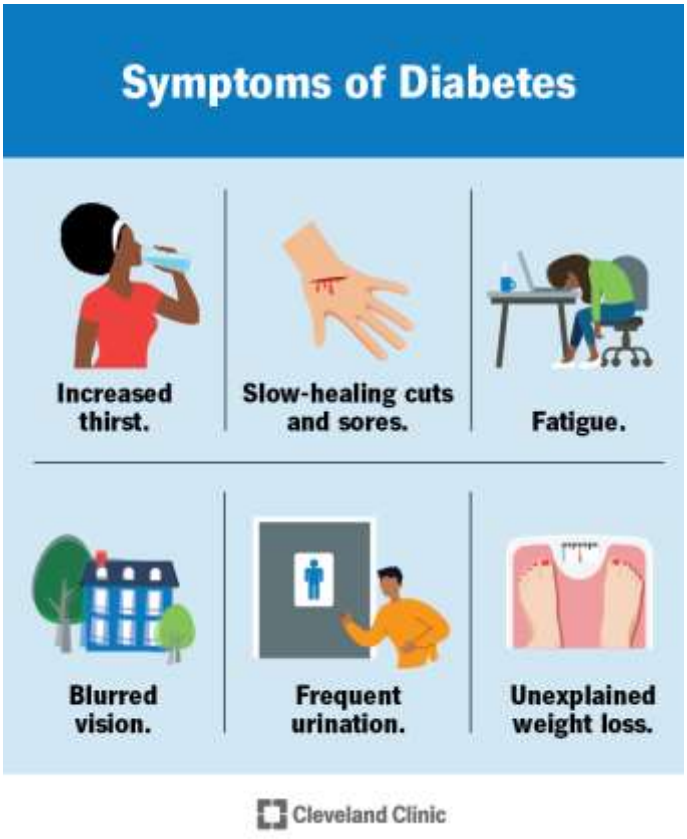
DIABETES SYMPTOMS





Type 2 diabetes symptoms generally develop gradually. They include: increased thirst, fatigue, frequent urination, blurred vision etc.

TYPE 2 DIABETES RISK FACTORS

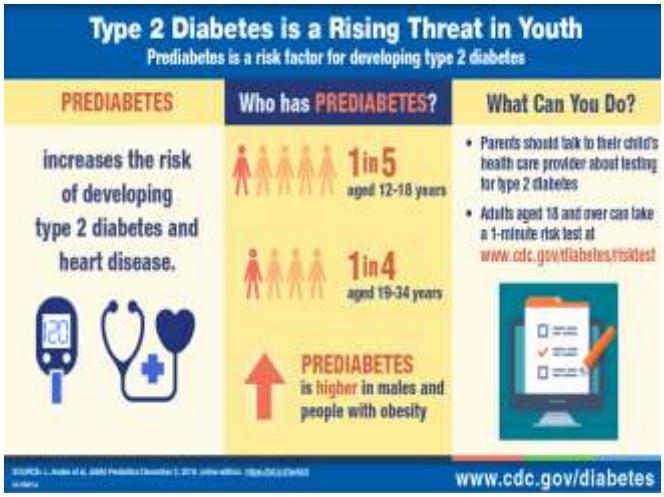
Type 2 diabetes risk factors

Some risk factors associated with type 2 diabetes include:

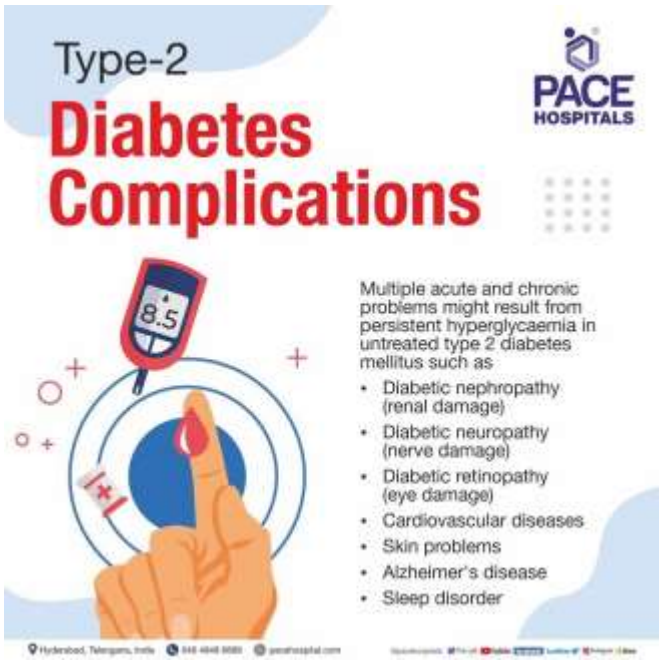
- Excess fat accumulation in the abdomen
- Family history of having type 2 diabetes
- Low physical activity
- Overweight or obese
- Increase in triglycerides levels
- Age more than 35 years
- Prediabetes condition

In women, type 2 diabetes risk factors:

- Gestational diabetes (diabetes for the first-time during pregnancy).
- Giving birth to a baby (previous pregnancy) of more than four kilograms
- Presence of polycystic ovary syndrome



DIABETES COMPLICATIONS



Multiple acute and chronic problems might result from constant high blood sugar in untreated type 2 diabetes. Some of these complications include:

- Diabetic nephropathy (renal damage)
- Diabetic neuropathy (nerve damage)
- Diabetic retinopathy (eye damage)
- Cardiovascular diseases
- Skin problems
- Alzheimer's disease
- Sleep disorder

In diabetic nephropathy, unabsorbed glucose builds up in the blood and moves out of the body through the kidney. Increased blood glucose levels damage the kidney's blood vessels, leading to end-stage kidney failure.

In diabetic neuropathy, a rise in blood glucose levels destroys the capillary walls (small blood vessels), reducing the flow of oxygen and nutrients to the nerves. High blood glucose levels might affect the nerves' chemicals, reducing their ability to send impulses which cause pain and numbness, especially in fingers and toes.

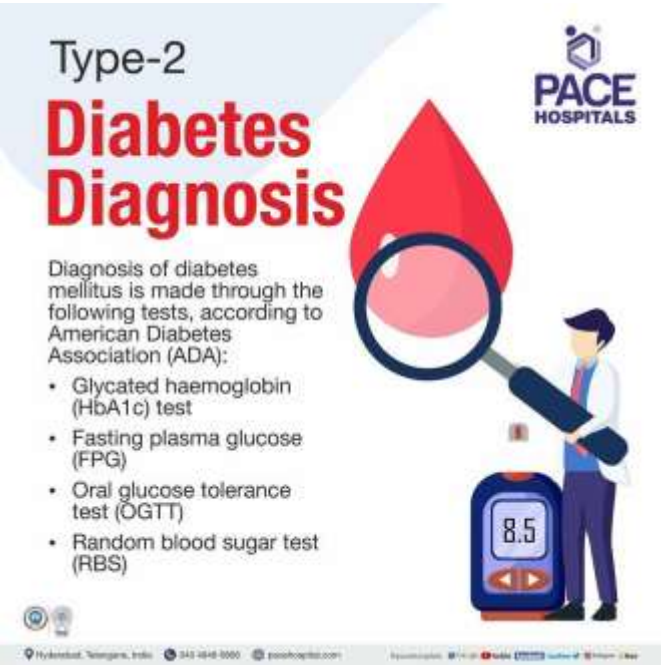
Diabetic retinopathy (eye damage): A rise in blood glucose levels destroys the retina's blood vessels, which causes blindness. It also raises the risk of cataracts and glaucoma, which are significant eye disorders.

Cardiovascular diseases: People with type 2 diabetes are at a higher risk of acquiring cardiovascular issues than the general population, that includes coronary artery disease, strokes, atherosclerosis, and high blood pressure. Research has shown that an increase in consumption of a diet rich in sugar had low HDL (good cholesterol), high LDL (bad cholesterol) and high triglycerides increased the risk of cardiovascular problems. Furthermore, high blood glucose reduces the elasticity of blood vessels, leading to constriction and thereby restricting blood flow. This can result in a decreased blood and oxygen flow, increasing the risk of hypertension and damage to large and tiny blood vessels.

Skin problems: Diabetes may increase the susceptibility to skin issues, such as bacterial and fungal infections.

Alzheimer's disease: Increased blood glucose can cause an increase in beta-amyloid protein, which might contribute to Alzheimer's disease.

Sleep disorder: Diabetes mellitus might affect central respiratory control and might lead to obstructive sleep apnea.



Type 2 diabetes treatment

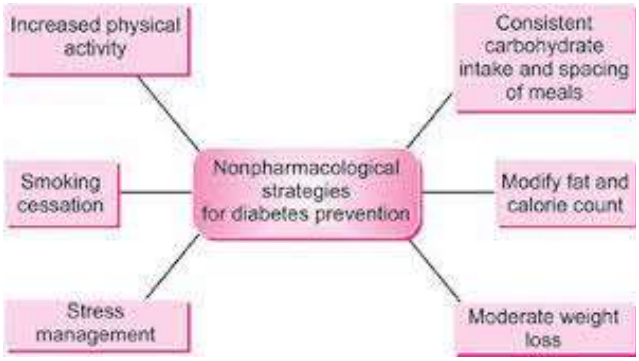
Generally, diabetes mellitus treatment is in two forms: i) Pharmacological; and ii) Non-pharmacological

Pharmacological includes the medical management such as:

- Oral antidiabetics
- Insulin therapy

Non-pharmacological include:

- Diet and regular exercise.
- Intake of a small diet at regular intervals, which is rich in fibre
- Daily exercise includes brisk walking or running, or swimming for at least 150 minutes a week
- Reduced body weight



https://www.google.com/search?sca_esv=bcd8cd53e04dedb1&q=image+non+pharmacological+diet+for+diabetes+prevention

DIABETES-RELATED SNIPPETS

What affects my cholesterol levels?

A variety of things can affect cholesterol levels. These are some things you can do to lower your cholesterol levels:

Diet. Saturated fat and cholesterol in the food you eat make your blood cholesterol level rise. Reducing the amount of saturated fat in your diet helps lower your blood cholesterol level. Foods with high levels of saturated fats include some meats, dairy products, chocolate, baked goods, deep-fried and processed foods.

Weight. Being overweight is a risk factor for heart disease. It also tends to increase your cholesterol. Losing weight can help lower your LDL (bad) cholesterol, total cholesterol, and triglyceride levels and raise your HDL (good) cholesterol level.

Physical Activity. Not being physically active is a risk factor for heart disease. Regular physical activity can help lower LDL (bad)

cholesterol and raise HDL (good) cholesterol levels. It also helps you lose weight. You should try to be physically active for 30 minutes on most, if not all, days.

Smoking. Cigarette smoking lowers your HDL (good) cholesterol. HDL helps to remove bad cholesterol from your arteries. A lower HDL can contribute to a higher level of bad cholesterol.

Preventing & Managing Cholesterol Levels

Total cholesterol — A high total cholesterol level can increase your risk of cardiovascular disease. However, decisions about when to treat high cholesterol are usually based upon the level of low density lipoprotein (LDL) or high density lipoprotein (HDL) cholesterol rather than the level of total cholesterol. Cholesterol numbers are measured in milligrams per deciliter (mg/dL). In general:

- A total cholesterol level of less than 200 mg/dL (5.17 mmol/L) is normal
- A total cholesterol level of 200 to 239 mg/dL (5.17 to 6.18 mmol/L) is borderline high
- A total cholesterol level of 240 mg/dL (6.21 mmol/L) or greater is high

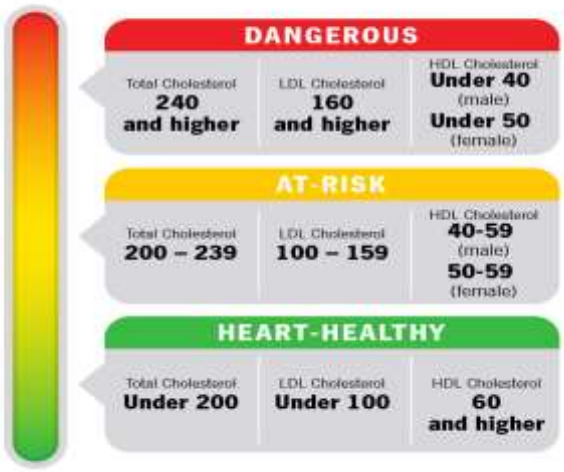
LDL Cholesterol

This is sometimes called "bad" cholesterol, as high LDL levels raise your risk of cardiovascular disease. Your goal LDL cholesterol depends on your overall risk for a cardiovascular event (heart attack or stroke). Several factors affect your personal risk, including:

Whether you have a history of cardiovascular disease and your risk of developing cardiovascular disease in the future (based on your age, gender, and other major risk factors). People at higher risk are often given a lower LDL cholesterol goal.

HDL Cholesterol

Not all cholesterol is bad. High levels of HDL ("good") cholesterol is an indicator of a lower risk of cardiovascular disease. A level of 60 mg/dL or higher is excellent, while levels of HDL cholesterol less than 40 mg/dL are considered lower than desirable.



Reprinted from https://my.clevelandclinic.org/health/articles/11920-cholesterol-numbers-what-do-they-mean

What do Cholesterol Numbers Mean?

Healthy cholesterol levels, by age and gender:

Men aged 20 or older:

Type of Cholesterol	Healthy Level
Total Cholesterol	125 to 200mg/dL
Non-HDL	Less than 130mg/dL
LDL	Less than 100mg/dL
HDL	40mg/dL or higher

Women aged 20 or older:

Type of Cholesterol	Healthy Level
Total Cholesterol	125 to 200mg/dL
Non-HDL	Less than 130mg/dL
LDL	Less than 100mg/dL
HDL	50mg/dL or higher

https://medlineplus.gov/cholesterollevelswhatyouneedtoknow.html