



TOWN OF WESTFORD  
**BOARD OF HEALTH**  
TOWN HALL (Second Floor)  
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**ASK THE NURSE**  
Gail Johnson, Public Health Nurse  
Westford Health Department  
**WHAT IS CHOLESTEROL**  
**OCTOBER 2025**

**What is cholesterol**

Cholesterol is a waxy, fatlike substance in our blood.

Blood cholesterol comes from our liver and helps our bodies build cells, vitamins and certain hormones. Cholesterol also comes from our diet, like meat, cheese, milk, and eggs.

**What is “good” and “bad” cholesterol**

Your physician might order a blood test (lipid profile/panel) to check for hyperlipidemia or hypercholesterolemia (high cholesterol) the blood test consists of HDL, LDL, triglycerides, and total cholesterol.

High-density lipoprotein (HDL) “good” cholesterol. High levels of HDL decrease the risk of stroke, heart attack, and heart disease. If your HDL levels are too low, there will be too much cholesterol circulating in your blood.

Low-density lipoprotein (LDL) “bad” cholesterol. High LDL increases the risk of stroke, heart attack, and heart disease. Too much LDL increases the risk of plaque build-up in the arteries.

Triglycerides are a type of fat in our body. Too high levels of triglycerides can cause cholesterol to build up.

To decrease the risk of stroke or heart attack make sure you keep track of your levels of HDL, LDL, and triglycerides, and total cholesterol.



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### **What are some of the risk factors that can contribute to high cholesterol**

- Alcohol
- Smoking
- Stress
- Lack of physical activity/sedentary lifestyle
- Certain foods in your diet
- Obesity
- Genetic/heredity
- Diabetes

### **What is atherosclerosis**

Atherosclerosis is a thickening or hardening of the arteries. This buildup of plaque affects the inner lining of an artery. Plaque (or fatty deposits) are partly made up of multiple components like fatty substances, cholesterol, fibrin, & calcium.

Atherosclerosis can lead to serious complications if left untreated

- Coronary artery disease (CAD) blood flow blocked to the heart
- Peripheral artery disease (PAD) blood flow blocked to the arms & legs
- Carotid artery disease (CAD) blood flow blocked to your brain

### **What happens when plaque builds up in the arteries**

When too much plaque builds up in the arteries, it can cause them to narrow, making it harder for blood to flow through. This reduced blood flow can lead to serious health problems including heart attacks and stroke.

Imagine your blood vessels are like tunnels, and your blood is like traffic moving through them. When plaque builds up inside the arteries-like a car stuck in a tunnel-the space for cars or blood to move through gets narrower. Just like a traffic jam can slow or block cars, too much plaque can slow or even stop blood flow.

### **What are the risk factors for stroke?**

- High blood pressure
- Smoking
- High cholesterol
- Diabetes
- Obesity and lack of physical activity
- Family history & age



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**The American Heart Association uses F.A.S.T. as warning signs of stroke**

**F**-Face drooping- Look for one side of the face drooping or ask if their face is numb. Have the person smile-is their smile crooked?

**A**-Arm weakness- Is one arm weaker than the other. Have the person put both arms out, does one arm drift, or are they unable to lift it?

**S**-Speech difficulty- Is their speech slurred, or garbled

**T**-Time to call 911

Some other symptoms that might be present are numbness on one side of the body, confusion, difficulty seeing, or walking or complaints of a severe headache.

**What are some of the recommendations the physician might suggest you make to decrease the risk of heart disease and stroke.**

The doctor might suggest a lifestyle change, like changing your diet, increasing physical activity, monitoring blood sugar, smoking cessation, managing your weight, cholesterol-lowering medicines, blood pressure medication, & blood thinners (anticoagulants). Making these changes will help lower your risk, but there are some changes that can't be changed like genetics, heredity, & age.

**What are the recommended guidelines for a lipid panel**

*\*These guidelines may vary \*Updated guidelines are expected to come out in 2026*

Total Cholesterol: Optimal: 150-200 mg/dl  
Borderline high 200-239 mg/dl  
High: Above 240 mg/dl

LDL: Best: 55-69 mg/dl with high risk factors  
Optimal: at or below 100 mg/dl

HDL: Above 40 mg/dl the higher the better

Triglycerides: Normal: less than 150 mg/dl

Respectively submitted by,  
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Westford Health Department



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American Heart Association: <https://www.heart.org/en/health-topics/cholesterol/about-cholesterol/atherosclerosis>

American Heart Association: <https://www.heart.org/en/health-topics/cholesterol/about-cholesterol/what-your-cholesterol-levels-mean>

American Heart Association: <https://www.stroke.org/en/about-stroke/stroke-symptoms>

American Heart Association: [https://www.heart.org/-/media/Files/Health-Topics/Cholesterol/What-is-Cholesterol.pdf?sc\\_lang=en](https://www.heart.org/-/media/Files/Health-Topics/Cholesterol/What-is-Cholesterol.pdf?sc_lang=en)

Cleveland Clinic: <https://my.clevelandclinic.org/health/articles/11918-cholesterol-high-cholesterol-diseases>

Cleveland Clinic: <https://my.clevelandclinic.org/health/articles/11920-cholesterol-numbers-what-do-they-mean>

Mayo Clinic: <https://www.mayoclinic.org/diseases-conditions/high-blood-cholesterol/symptoms-causes/syc-20350800>

Johns Hopkins: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/atherosclerosis>

Johns Hopkins: <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/lipid-panel>

\*NOTE The information above was taken from various sources, to explain cholesterol and it's risk factors. This information is meant to be truthful, accurate, & educational and not meant to misrepresent any article previously written and submitted by any organization. Informational ONLY. NOT MEDICAL ADVICE