

Understanding Your Cholesterol Ratios

Two simple numbers that tell a bigger story than total cholesterol alone

Why we look at ratios

Your cholesterol numbers tell a bigger story when we compare them to each other. A single number, like total cholesterol, can look fine while a hidden problem is building. Ratios show the balance between the "helpful" and "harmful" parts of your blood fats.

We calculate two ratios from your standard blood test. Both use **HDL**, your "good" cholesterol, which helps clear excess fat from your blood. The higher your HDL compared to the other numbers, the better.

1 Triglycerides ÷ HDL

What it tells us: how well your body handles sugar and starch. This ratio is one of the best early warning signs of **insulin resistance**, the problem that leads to weight gain around the middle, prediabetes, type 2 diabetes, and heart disease. A high ratio also points to small, dense LDL particles, the kind most likely to damage artery walls.

Why it matters to you: this number reacts to what you eat, especially sugar, bread, pasta, and other refined carbohydrates. That means it can improve quickly when you change your habits.

How to figure it: **Triglycerides ÷ HDL**

Under 1.0
Ideal

1.0 – 2.0
Good

2.0 – 3.0
Borderline

3.0 – 4.0
Likely insulin
resistance

Over 4.0
High risk

↙ Better

Needs attention ↘

Triglycerides 80 HDL 60 = 1.3 Good

Triglycerides 180 ÷ HDL 40 = 4.5 Red flag

These ranges apply to US lab results (mg/dL). If your lab report shows mmol/L, ask us, because the targets are different.

Why we use both

The two ratios answer different questions. Together they give a fuller picture than either one alone.

Triglycerides ÷ HDL

Shows **why** trouble may be starting: how your metabolism handles sugar.

Total Cholesterol ÷ HDL

Shows **how much** heart risk you carry right now.

2 Total Cholesterol ÷ HDL

What it tells us: your overall risk of heart attack and heart disease. Large, long-term studies show this ratio predicts heart problems better than total cholesterol or LDL alone.

Why it matters to you: a "normal" total cholesterol can still carry risk if your HDL is low. This ratio catches that.

How to figure it: **Total Cholesterol ÷ HDL**

Under 3.5
Ideal

3.5 – 5.0
Acceptable, room to improve

Over 5.0
Higher heart risk

↙ Better

Needs attention ↘

Total cholesterol 200 HDL 50 = 4.0 Acceptable

Be on the lookout if:

- Your Triglycerides ÷ HDL is over 2.0, or climbing from one test to the next
- Your Total Cholesterol ÷ HDL is over 5.0
- Your HDL is under 40 (men) or under 50 (women)
- Your triglycerides are over 150
- You're gaining weight around your waist, crave sweets, or feel tired after meals

A note on accuracy: in people of African descent, triglycerides often run low even when insulin resistance is present. For these patients we may add other tests, like fasting insulin, to be sure.

What improves your numbers

The good news: both ratios respond to how you live. Things that help most:

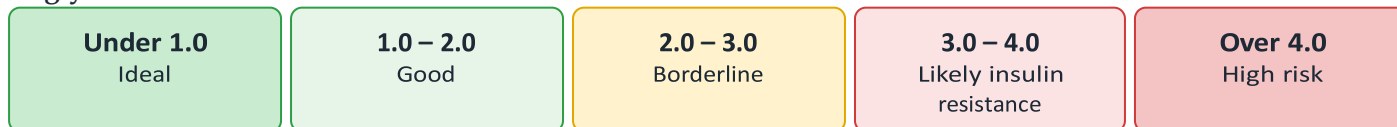
- Cutting sugar, sweet drinks, and refined carbohydrates (bread, pasta, pastries)
- Eating real, whole foods with healthy fats and enough protein
- Regular movement, especially walking after meals and strength training
- Better sleep and less stress
- Targeted nutritional supplementation, based on your results

Next steps: we'll recheck your ratios after you've made changes, usually in 8 to 12 weeks. For a more detailed look, we may also test **ApoB** (a count of the particles that carry cholesterol into your arteries) and **fasting insulin**. We'll go over your numbers together. The doctors will be consulting you further.

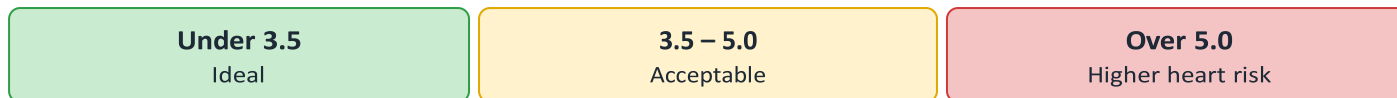
Where do my numbers fall?

Find your number on each bar and circle it. Green is where we want you.

Triglycerides ÷ HDL



Total Cholesterol ÷ HDL



My numbers

Copy these from your lab report. All numbers in mg/dL.

Test	Goal	First test Date: _____	Recheck (8–12 wks) Date: _____
Triglycerides	Under 100		
HDL ("good" cholesterol)	Over 50		
Total cholesterol	Ask us		
Triglycerides ÷ HDL	Under 2.0 (ideal under 1.0)		
Total Cholesterol ÷ HDL	Under 5.0 (ideal under 3.5)		
Waist size (inches)	Getting smaller		

• My action plan

Dr. K... or Dr. Tim will fill in the steps chosen for you.

1.

2.

3.

Questions for my next visit
