Interpretation results

Date: **01.06.2026**

User: **Female, 52 y.o.**

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Test type

Lipid panel, fasting

Summary table of results

Marker	Result	Reference (from the form)	Status
Total cholesterol	240 mg/dL	< 200 mg/dL	HIGH
LDL cholesterol	147 mg/dL	< 100 mg/dL	HIGH
HDL cholesterol	35 mg/dL	> 50 mg/dL for women	LOW
Triglycerides	230 mg/dL	< 150 mg/dL	HIGH

Interpretation of deviations

Total cholesterol — 240 mg/dL

- Clinical meaning: **Elevated** total cholesterol is associated with increased cardiovascular risk, especially when LDL is also **elevated** and HDL is **low**.
- Possible causes: **Low** physical activity, post-menopausal hormonal changes, weight gain around the waist, dietary pattern **high** in saturated fats/refined carbohydrates, hypothyroidism, insulin resistance, or genetic predisposition.

LDL cholesterol — 147 mg/dL

- Clinical meaning: LDL is the main “atherogenic” cholesterol fraction. Elevation may contribute to plaque formation in arteries and increased risk of heart attack and stroke over time.
- Possible causes: Post-menopausal lipid changes, excess abdominal fat, **low** activity level, diet, hypothyroidism, diabetes/prediabetes, kidney disease, or familial lipid disorders.

HDL cholesterol — 35 mg/dL

- Clinical meaning: HDL is below the recommended level for women. Low HDL is often seen with metabolic risk factors and is associated with higher cardiovascular risk.
- Possible causes: Low physical activity, central weight gain, smoking if applicable, insulin resistance/prediabetes, high triglycerides, diets high in refined carbohydrates, and genetic factors.

Triglycerides — 230 mg/dL

- Clinical meaning: This is elevated. High triglycerides can be associated with insulin resistance, fatty liver risk, and increased cardiovascular risk. Levels above 200 mg/dL often occur together with low HDL.
- Possible causes: Abdominal weight gain, low activity, excess sugars/refined carbohydrates, alcohol intake, prediabetes/diabetes, hypothyroidism, liver disease, some medications, and post-menopausal metabolic changes.

Combined assessment

The pattern is an atherogenic lipid profile: high LDL, high triglycerides, low HDL, and elevated total cholesterol. In a 52-year-old post-menopausal woman with recent waist-centered weight gain and low physical activity, this pattern may suggest increased cardiometabolic risk and possible insulin resistance or metabolic syndrome tendency.

A useful derived value is **non-HDL cholesterol = Total cholesterol − HDL = 240 − 35 = 205 mg/dL**, which is elevated by commonly used cardiovascular risk standards. Reference for this derived marker was not provided on the form, so this is based on generally accepted norms.

Recommended additional tests

- **Fasting glucose and HbA1c** — to assess for prediabetes/diabetes or insulin resistance.
- **TSH ± free T4** — hypothyroidism can raise LDL and triglycerides.
- **ALT, AST, GGT** — to screen for fatty liver/metabolic liver changes.
- **Creatinine/eGFR and urine albumin-to-creatinine ratio** — cardiovascular and metabolic risk assessment.
- **ApoB** — better reflects the number of atherogenic particles, especially when triglycerides are high.
- **Lipoprotein(a), once in adulthood** — inherited cardiovascular risk factor.
- **Blood pressure measurement and waist circumference** — needed to assess metabolic syndrome risk.

- **Repeat fasting lipid panel after lifestyle intervention or treatment changes** — often in about 6–12 weeks, as advised by a clinician.

Which doctor to consult

- **Primary care physician / internist** — for overall cardiovascular risk calculation and management plan.
- **Cardiologist** — if there are additional risk factors, family history of early cardiovascular disease, **high** blood pressure, chest symptoms, or if medication decisions are complex.
- **Endocrinologist** — if prediabetes/diabetes, thyroid dysfunction, or metabolic syndrome is suspected.
- **Registered dietitian** — for targeted nutrition support for LDL and triglyceride reduction.

General recommendations

- Increase physical activity gradually: aim for at least **150 minutes/week of moderate aerobic activity** plus **2 sessions/week of resistance training**, if medically safe.
- Prioritize weight reduction around the waist if overweight; even **5–10% weight loss** can improve triglycerides, HDL, and insulin sensitivity.
- Reduce saturated fats: limit butter, **high**-fat dairy, fatty processed meats, coconut/palm oils.
- Replace with unsaturated fats: olive oil, nuts, seeds, avocado, and fatty fish.
- Increase soluble fiber: oats, barley, legumes, vegetables, psyllium if tolerated.
- Reduce refined carbohydrates and added sugars, especially sweet drinks, desserts, white bread, pastries, and frequent **high**-starch snacks.
- Limit or avoid alcohol, especially because triglycerides are **elevated**.
- Consider a Mediterranean-style eating pattern.
- Discuss with a clinician whether lipid-lowering medication, such as a statin, is appropriate based on overall cardiovascular risk, blood pressure, smoking status, diabetes status, and family history.

Important: This decoding is preliminary. Reference values are taken from your form. Consult a physician for diagnosis.