

# Hyperlipidemia

## What is hyperlipidemia?

Hyperlipidemia is an increase in the amount of fat (such as **cholesterol** and **triglycerides**) in the blood. These increases can lead to heart disease and **pancreatitis**.

## Which anti-HIV medications can cause hyperlipidemia?

Some **protease inhibitors** (PIs) can raise blood lipid (fat) levels. Some PIs, such as Norvir, are more likely to cause hyperlipidemia than other PIs. Sustiva is a non-protease inhibitor drug that can also raise blood lipid levels.

Other factors can increase your risk of developing hyperlipidemia. Risks you can control include your alcohol intake, physical activity, and diet. Other risks include hypothyroidism, diabetes, and genetic factors. Oral contraceptives (birth control pills) can also increase triglycerides and total cholesterol.

## What are the symptoms of hyperlipidemia?

Hyperlipidemia has no symptoms. The only way your doctor can diagnosis it is through laboratory tests. Your doctor should order a **lipid profile** when you start anti-HIV medication. Once your baseline lipid levels are determined, your doctor should monitor your levels every 3 to 4 months, or at least once a year.

## What can I do if I have hyperlipidemia?

There are several things you can do to control your cholesterol and triglyceride levels. You can switch to a low-fat diet and control your weight. Your doctor may refer you to a dietician for help with your diet. Regular aerobic exercise has been shown to lower cholesterol. Quitting smoking and avoiding or limiting alcohol can also lower your cholesterol. Keeping your blood pressure under control is critical; you may need to take medication to lower your blood pressure.

## What medications are used to treat hyperlipidemia?

You and your doctor may decide that you should take a cholesterol-lowering medication. This might be a

### Terms Used in This Fact Sheet:

**Cholesterol:** a waxy, fat-like substance present in every cell in your body. Your liver produces cholesterol from stored carbohydrates and fats. Certain foods provide additional amounts of cholesterol, which may be more than your body needs. Cholesterol levels that are too high increase your risk of heart disease.

**Lipid profile:** a group of tests that indicates your risk of heart disease. The lipid profile tests levels of total cholesterol, HDL-cholesterol (good cholesterol), LDL-cholesterol (bad cholesterol), and triglycerides.

**Pancreatitis:** inflammation of the pancreas that can produce severe pain and debilitating illness.

**Protease inhibitor (PI):** class of anti-HIV medication. PIs work by blocking protease, a protein that HIV needs to make copies of itself. The PIs approved by the FDA are Agenerase, Aptivus, Crixivan, Fortovase, Invirase, Kaletra, Lexiva, Norvir, Reyataz, and Viracept.

**Triglycerides:** a type of fat-like substance. Fats from food are digested and released as triglycerides into the bloodstream. Triglycerides help transfer energy from food into cells. However, triglyceride levels that are too high increase your risk of heart disease and have been associated with diabetes and pancreatitis.

medication from the statin group. Examples of statins are Lipitor (atorvastatin) and Pravachol (pravastatin). If statins are not effective, another medication from a group called fibrates might be added. Lopid (gemfibrozil) and Tricor (fenofibrate) are drugs from the fibrate group. All of these medications can cause serious side effects and should be taken only as directed by your doctor.

## Will I need to change my HIV treatment regimen?

If your hyperlipidemia is severe or you do not respond to other treatments, you and your doctor may decide to change your anti-HIV medications. One option may be to replace your PI(s) with an anti-HIV medication from a different class; this might mean changing your entire regimen.

## For more information:

Contact your doctor or an AIDSinfo Health Information Specialist at 1-800-448-0440 or <http://aidsinfo.nih.gov>.