Lipoproteins, What Are They?

Lipoproteins are special transport carriers made of protein and different types of *cholesterol* (fat). In small amounts, cholesterol is important because it is used to form cell membranes, certain hormones and is needed for other essential body functions. Cholesterol, which is a soft, waxy substance, does not mix with blood, which is watery. Cholesterol is transported in the blood via lipoproteins. High levels of certain lipoproteins can increase your risk of heart disease and stroke because they attach to and build up on artery walls. These fatty deposits make it difficult for blood to flow through the arteries.

There are 3 types of lipoproteins:

- **Low Density liprotein (LDL)**:
  - LDL or “bad” cholesterol carry cholesterol particles throughout the blood stream. LDL cholesterol builds up on the artery walls, making them hard and narrow. The more LDL cholesterol you have in your blood, the greater your risk of heart disease. LDL levels less than 100 mg/dl are optimal.
- **High Density Lipoprotein (HDL)**:
  - HDL or “good” cholesterol help to protect against heart attack. Low levels of HDL (less than 40 mg/dl) can increase the risk of heart disease. HDL attaches itself to excess cholesterol and takes it to the liver. From there, the excess cholesterol is processed and excreted from the body. Optimal HDL levels range from 50-60 mg/dl.
- **Very Low Density Lipoprotein (VLDL)**:
  - This type of cholesterol contains *triglycerides* (a type of blood fat). VLDL cholesterol makes LDL cholesterol particles larger and is considered a "bad" fat. A normal VLDL level is between 5 and 40 mg/dl.

DIAGNOSIS

The above levels are determined through blood testing. Your caregiver will draw your blood and look at your levels. If your LDL and VLDL levels are high and your HDL is low, your caregiver may recommend:

- Medication.
- Weight loss.
- A change in eating habits.

Immediate measures you can take are:

- Do not smoke.
- Exercise. Excess weight can lead to numerous health problems.
- Eat a well balanced diet. Focus on whole grain breads, lean meats, fresh fruits and vegetables. Avoid fast food, fried food and high fat food.
- Drink alcohol only in moderation. Limit your alcoholic intake to 1-2 drinks per day.
- If you are put on cholesterol lowering medications, take them as instructed. Make sure you follow up with your caregiver as instructed.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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