Low HDL
(High Density Lipoprotein)

Many things affect your child’s chances of having heart and blood vessel disease as an adult. Some of these risk factors, such as family history, age, and gender, cannot be changed. Some of the risk factors can be changed, such as:
- Being overweight
- Tobacco use
- High blood pressure
- Low HDL cholesterol

Atherosclerosis, the build-up of cholesterol in arteries, starts in children as young as 2 years of age. By making wise food and activity choices now, your child can lower the risk of these problems when they are older:
- A stroke caused by blockages in the arteries that lead to the brain
- A heart attack caused by blockages in the arteries around the heart
- Peripheral vascular disease caused by blockages in arteries in the legs

Cholesterol is found in all cells. It is needed for many body functions. Lipoproteins are particles that carry cholesterol and other fats throughout the blood. Two important lipoproteins are HDL and LDL. HDL is the “happy” or “good” cholesterol that removes LDL (the “lousy” or “bad”) cholesterol from the bloodstream.

If HDL is low, below 45 mg/dL in children, it is a risk factor for heart disease, even if your total cholesterol is less than 200 mg/dL. You have a lower risk for getting coronary heart disease if your HDL is high.

To increase HDL “Healthy” levels:
- Be physically active daily
- Don’t use tobacco (cigarettes, chewing tobacco)
- Lose weight if you are overweight
- Eat foods rich in monounsaturated fat (see examples below)
- Eat foods rich in omega-3 fat (see examples on next page)

Good Fats Found in Food

Monounsaturated and Polyunsaturated fats can be found in olive oil, canola oil, peanut oil, sesame oil, nuts, avocado and olives. These fats can help to improve cholesterol levels in the blood.

Omega-3 fat is the type of fat found in fatty fish like salmon, mackerel, herring and sardines. Some plant foods, such as flaxseed, walnuts and canola oil also contain a form of omega-3 fat. Omega-3 fat can help lower triglycerides levels, raise HDL levels, lower the stickiness of blood cells and lower inflammation in the blood vessel wall.

To increase your Omega-3 intake:
- Eat fish at least 2 to 3 times per week
- Use walnuts as a snack or add ground flaxseed to cereal

Your health care provider may recommend fish oil supplements for your child.
Other Ways to Increase HDL

- **Physical activity.** Physical activity raises HDL and lowers triglycerides. It can also help with weight control and lead to faster weight loss if needed. Activities can be jogging, walking, biking, dancing and swimming. Children can play at a park or outside with friends. Experts say to aim for 60 minutes of vigorous play or aerobic activity daily.

- **Limit Screen Time.** It is advised to limit screen time to no more than 2 hours daily for all children over 2 years of age. Screen time includes phone, computers, video games and TV.

Teach Back

What is the most important thing you learned from this handout?

What changes will you make in your diet/lifestyle, based on what you learned today?

If you are a UW Health patient and have more questions please contact UW Health at one of the phone numbers listed below. You can also visit our website at [www.uwhealth.org/nutrition](http://www.uwhealth.org/nutrition).

Nutrition clinics for UW Hospital and Clinics (UWHC) and American Family Children’s Hospital (AFCH) can be reached at: **(608) 890-5500**.

Nutrition clinics for UW Medical Foundation (UWMF) can be reached at: **(608) 287-2770**.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 11/2016 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Clinical Nutrition Services Department and the Department of Nursing. HF#600