

## Hypertriglyceridemia: A Guide for Families

### What is hypertriglyceridemia?

*Triglycerides* are a type of fat circulating in the blood. They are an important source of stored energy. *Hypertriglyceridemia* means an elevated blood level of fasting triglycerides. It is important to fast for 8 to 12 hours before checking triglyceride levels. Patients with high triglyceride levels also have lower levels of high-density lipoprotein cholesterol (often referred to as *good cholesterol*).

### What causes hypertriglyceridemia?

Excess consumed calories are normally stored as triglycerides in fatty tissue. Elevated circulating triglycerides are often seen in individuals who are insulin resistant, sometimes along with the presence of overweight or obesity, especially in the abdominal area. Triglycerides levels are also affected by age, pubertal development, and genetic conditions. Large amounts of carbohydrates in the diet, including sugary drinks, can increase triglycerides, especially if someone also has insulin resistance. In a small number of people with mutations that affect triglyceride metabolism, consuming large amounts of fat in the diet also raise triglyceride levels. Some medical conditions, such as poorly controlled diabetes, kidney disease, thyroid problems, certain types of medications, and a rare condition called *lipodystrophy*, can cause elevated triglyceride levels.

### What results from having high triglyceride levels?

Severely elevated triglyceride levels (>1,000 mg/dL) or triglyceride levels that are persistently greater than 500 mg/dL can cause inflammation of the pancreas (*pancreatitis*). Persistently elevated triglyceride levels increase the risk of fatty liver. Elevated triglycerides can sometimes increase the risk of future heart disease.

### How are high triglyceride levels treated?

Weight loss improves triglyceride levels, especially in children who are overweight in the abdominal area. Adequate blood sugar control can improve elevated triglyceride levels in patients with diabetes. Limit caloric intake to metabolic needs. Limit refined carbohydrate intake by reducing intake of simple starches, such as white pasta, white rice, white bread, potatoes, and low-fiber cereals; simple sugars; and sugar-sweetened beverages, such as regular soda, sports drinks, and juice. Increase fiber content of the diet by including whole grains, brown rice, whole-wheat bread, legumes, high-fiber cereals, and vegetables in the diet. Eat whole fruits. Limit unhealthy fat intake. In rare cases of genetic hypertriglyceridemia, your child's doctor will advise you to limit your child's total fat intake to a certain amount.

Eat oily, cold-water fish, like salmon and tuna, that are rich in omega-3 fatty acids at least twice weekly, or take fish oil supplements to help decrease triglyceride levels. Use cooking oils that are rich in monounsaturated and polyunsaturated fatty acids, such as canola oil, corn oil, olive oil, and safflower oil.

At least an hour of moderate to vigorous activity daily is recommended. Your child's doctor will determine if your child needs to take any medications.

*Pediatric Endocrine Society/American Academy of Pediatrics  
Section on Endocrinology Patient Education Committee*

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



**PES** PEDIATRIC ENDOCRINE SOCIETY