NEED TO KNOW?

YOUR QUESTIONS ANSWERED

Cholesterol targets

Q **"My doctor said my total cholesterol-to-HDL target is 5.0. What does that mean?"**

Dr. Alice Cheng responds: There are many different types of cholesterol in the body: LDL or "bad" cholesterol and HDL ("good") cholesterol are the best known ones, but there are others, and several different ways to measure the amount of each in your blood. "High cholesterol", which in effect means you have too much "bad" cholesterol, increases the risk of heart disease and stroke. To decide when treatment for high cholesterol is necessary, and how aggressive that treatment should be, the Canadian cholesterol guidelines recommend that two measurements be targeted: LDL cholesterol and the total cholesterol to HDL (TC:HDL) ratio. Targeting LDL cholesterol makes sense because it's the type of cholesterol that can directly contribute to clogged arteries. But the TC:HDL ratio is also a useful calculation because it gives us a sense of the amount of bad versus good cholesterol.

Total cholesterol is a rough sum of all the components of a lipid profile, but is predominantly made up of the parts that contribute to heart disease and stroke so it provides a rough sense of the amount of "bad". In contrast, the HDL value measures only the "good" cholesterol so the higher that number is, the better.

The TC:HDL ratio provides more information than either of the two values alone. When the "bad" is high (and therefore total cholesterol is high), one needs that much more "good" (HDL) to counteract it. Contrast this with someone who has a low total cholesterol value because his or her LDL is low. That person does not need as much HDL to cancel it out. The ratio of these two values is a more accurate measure of cardiovascular risk because it takes the balance between "good" and "bad" cholesterol into account. A higher ratio means that the total cholesterol outweighs the HDL cholesterol, and the risk of heart attack and stroke is greater. If the ratio is low, there's enough HDL to balance things out and the cardiovascular risk is lower.

Your doctor will assess your "target", or ideal TC:HDL value based on your cardiovascular risk assessment. For low risk patients, the recommended ratio is below 6.0; for moderate risk patients it's under 5.0; and for high-risk patients, the recommended ratio is less than 4.0.

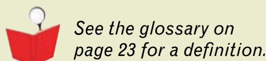
Dr. Alice Cheng is an Assistant Professor at the University of Toronto and a specialist in endocrinology and metabolism at St. Michael's Hospital in Toronto.

Do you have a question for our panel of expert physicians?

Take charge of your health and find out what you can do to better manage your illness.

Please send your questions to health_essentials@parkpub.com, or by mail to:

Health Essentials
400 McGill, 3rd floor
Montreal, Québec H2Y 2G1



See the glossary on page 23 for a definition.

© 2007 Parkhurst, publisher of Health Essentials. All rights reserved

A tricky relationship

"Are food allergies and asthma related?"

Dr. Susan Waserman responds: The relationship between food allergies and asthma is complex. As they get older, children who have food allergies — especially to egg or milk — are more likely to develop asthma. This progression is called the "allergic march". People with certain food allergies tend to have more severe asthma, and may require more medication and hospitalization.

Individuals with both conditions are also at greater risk of a severe allergic reaction if they eat a food to which they are allergic. This is especially true if the asthma is poorly controlled.

Food allergies, however, don't cause asthma. Asthma is a chronic disease caused by inflammation of the airways that can be aggravated by triggers like animal and pollen allergies or viral infections.

Symptoms of asthma — cough, wheeze and shortness of breath — are only rarely triggered by food, but it can happen. For example, inhaling vapour while cooking fish and shellfish can trigger asthma symptoms in people with allergy to these foods. Inhaling peanut butter, though, doesn't generally seem to have the same effect in the peanut allergic. Rarely, food additives found in dried fruits and vegetables, wine and beer can cause respiratory reactions in people with severe asthma.

The incidence of both food allergies and asthma is increasing worldwide. Approximately 3-4% of adults and 6% of children under the age of three have food allergies, most often to things like milk, eggs, peanuts, fish, shellfish and tree nuts.

Common symptoms of food allergies include hives, **eczema**, abdominal pain and vomiting. People with food allergies may also be at risk of **anaphylaxis**, a serious allergic reaction that can cause swelling, difficulty breathing, vomiting, a drop in blood pressure and even death.

Severe allergic reactions require immediate treatment with epinephrine and medical attention. People who are at risk of these reactions should always have injectable epinephrine (Epipen® or Twinject®) readily available.

As you can see, accurate diagnosis of food allergy and asthma is critical. Although food is not a common cause of asthma, it appears to be an important asthma risk factor and may produce acute symptoms in certain individuals, under particular circumstances.

Dr. Susan Waserman is a specialist in Allergy and Clinical Immunology at the Hamilton Health Sciences Centre and an Associate Professor of Medicine at McMaster University.

Long-term safety

"Are GERD medications safe over the long term?"

Dr. Pierre Paré responds: Doctors have been prescribing proton pump inhibitors (PPIs) for more than 15 years. Our experience with this class of medications is therefore quite vast and its safety profile is well established.

PPIs interfere with the production of acid in the stomach. The goal of using them for prolonged periods of time is to control the symptoms of gastroesophageal reflux disease (GERD) and improve quality of life. People with GERD often experience chronic heartburn — the more frequent and severe their symptoms, and the longer they last, the greater the risk of serious complications.

Taking PPIs, even over long periods of time, rarely causes serious **adverse events** and no harmful interactions with other drugs have been identified. A minority of people may experience side effects like diarrhea, abdominal pain, headache or nausea. Long-term studies (up to 11 years) have shown no increased risk of stomach cancer among people taking PPIs.

Even though they alter the amount of acid in the stomach, PPIs don't interfere with digestion. People who take PPIs at high doses for very long periods of time may see a slight drop in blood levels of vitamin B12, that isn't known to cause any significant health problems.

Taking PPIs was once thought to put people at risk of infection with *Clostridium difficile*, a bacterium that can cause life-threatening diarrhea. We now know that though the *combination* of PPIs and antibiotics may make a person more susceptible to the infection, simply being on a PPI isn't a risk factor for otherwise healthy people.

Recently, studies have also suggested that long-term use of high doses of PPIs may increase the risk of hip fracture in people over the age of 65. Those findings have been questioned by other researchers and remain to be confirmed by more rigorous, **prospective studies**.

As with all medications, PPIs must be prescribed with care. In most cases, the majority of doctors think that the benefits of these drugs outweigh the risks.

Dr. Pierre Paré is a gastroenterologist at the Centre hospitalier St-Sacrement in Québec. He is actively involved in gastro-intestinal research and is a Professor of Medicine at Université Laval.

© 2007 Parkhurst, publisher of Health Essentials. All rights reserved