Do you have any information on cholesterol? [1]

Alice,

Do you have any information on cholesterol?

? Seeking fat

Answer

Dear Seeking fat,

Cholesterol is a white, waxy lipid (fat) found naturally in the human body. Most cholesterol is produced by the liver, while a smaller amount is ingested directly from meat, poultry, seafood, dairy products, and other foods of animal origin (plant foods do not contain cholesterol). Cholesterol is involved in many vital life-processes, such as the production of hormones and the repair of cell membranes. To get where it’s needed, cholesterol travels through the bloodstream as lipoproteins – fat packaged up in little protein spheres.

Studies have demonstrated that a blood test measuring cholesterol levels can help establish one’s risk for heart disease. This test measures the amount of fat found in the bloodstream, including high-density lipoproteins (HDL), low-density lipoproteins (LDL), and triglycerides (another type of fat molecule). A total cholesterol score is then obtained by putting these three numbers into a mathematical formula. Research has shown that high levels of HDL decrease one’s risk for heart disease (hence the term "good" cholesterol), while high LDL levels (a.k.a. "bad" cholesterol) increase one’s risk. The medical community currently uses the following guidelines to put these numbers in perspective.

<table>
<thead>
<tr>
<th>Desirable Range</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Cholesterol</strong></td>
<td>&lt; 200 milligrams (mg)/deciliter (dL)</td>
</tr>
<tr>
<td><strong>LDL</strong></td>
<td>&lt; 130 mg/dL</td>
</tr>
<tr>
<td><strong>HDL</strong></td>
<td>&gt; 60 mg/dL</td>
</tr>
<tr>
<td><strong>Triglycerides</strong></td>
<td>&lt; 150 mg/dL</td>
</tr>
</tbody>
</table>

Because the total cholesterol score is a composite that includes both "good" and "bad"
cholesterol, this number alone is less useful as an indicator of risk than the ratio of total cholesterol to HDL. For example, having a total cholesterol number above 200 mg/dL indicates a statistically greater risk of heart disease, but if this number is arrived at because the HDL number is especially high while the LDL and triglyceride numbers are normal or low, then the risk level may actually be below average. The ideal total cholesterol to HDL ratio is less than 3.5; a ratio of 4.5 is average, while a ratio of 5 or greater is a red flag.

<table>
<thead>
<tr>
<th>Total Cholesterol/HDL Ratio Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal: &lt; 3.5</td>
</tr>
<tr>
<td>Average: 4.5</td>
</tr>
<tr>
<td>Potentially Harmful: ≥ 5</td>
</tr>
</tbody>
</table>

Blood cholesterol levels vary according to genetics as well as lifestyle choices. For example, eating saturated fats is the largest contributor to high blood cholesterol levels. Other lifestyle factors include smoking, which is associated with lowering HDL levels (increasing risk), and regular exercise, which is associated with boosting them (lowering risk).

For more detailed information on cholesterol, read the related Q&As or visit the American Heart Association web site [2].

Alice!
Category:
Nutrition & Physical Activity [3]
Food Choices & Health [4]

Related questions
"Good" and "bad" cholesterol [5]
What are the health implications of low cholesterol? [6]
Heart Foundation diet? [7]
Cholesterol-lowering methods [8]
Good vs. bad fats [9]
Cholesterol screening test [10]
Published date:
Jan 19, 1995
Last reviewed on:
May 19, 2015

Footer menu
- Contact Alice!
  - Content Use
  - Media Inquiries
  - Comments & Corrections
Go Ask Alice! is not an emergency or instant response service.

If you are in an urgent situation, please visit our Emergency page to view a list of 24 hour support services and hotlines.

Source URL: http://www.goaskalice.columbia.edu/answered-questions/do-you-have-any-information-cholesterol#comment-0

Links