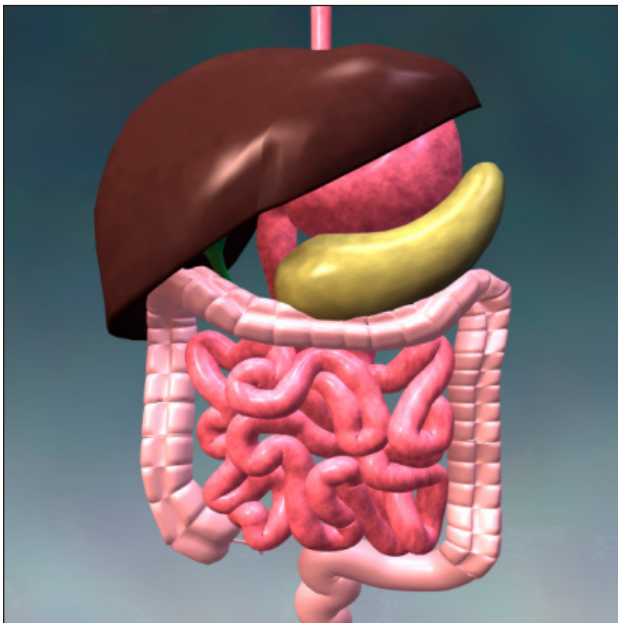


## How the Body Produces & Uses Cholesterol

Cholesterol in the blood is controlled in two important places:

- Liver – where cholesterol is produced
- Intestines – where cholesterol is absorbed.



Dietary lipids (cholesterol and triglycerides) are absorbed through the **intestines** and then are delivered through the bloodstream to the **liver**, where they are processed.<sup>1</sup>

The **liver** produces cholesterol (using it to make digestive acids, which are also called bile) and also removes cholesterol from the blood. The **intestines** absorb cholesterol, which comes from food and from bile.<sup>2</sup>

“One of the main jobs of the **liver** is to make sure all the tissues of the body receive the cholesterol and triglycerides they need to function.

Whenever possible (i.e., for about 8 hours after a meal), the liver takes up dietary cholesterol and triglycerides from the bloodstream. During times when dietary lipids are not available, the liver produces cholesterol and triglycerides itself.”<sup>1</sup> The liver then packages the cholesterol and triglycerides, along with special proteins, into tiny spheres called **lipoproteins** (HDL and LDL). “Cholesterol can’t dissolve in the blood. It has to be transported to and from the cells by carriers called lipoproteins.”<sup>3</sup> “The lipoproteins are released into the circulation and are delivered to the cells of the body. The cells remove the needed cholesterol and triglycerides from the lipoproteins as they are needed.”<sup>4</sup>

If the **liver** produces more cholesterol than the **intestines** absorb, there will be excess cholesterol in the blood.<sup>2</sup>

Sources:

1. Fogoros, R.N. (2003). Cholesterol and triglycerides [on-line]. Retrieved August 16, 2007. From <http://heartdisease.about.com/cs/cholesterol/a/choltri.htm>.
2. American Heart Association (2007). Common misconceptions about cholesterol [on-line]. Retrieved June 21, 2007. From <http://www.americanheart.org/presenter.jhtml?identifier=3006030>.
3. American Heart Association (2007). LDL and HDL cholesterol: What’s bad and what’s good? [on-line]. Retrieved August 20, 2007. From <http://www.americanheart.org/presenter.jhtml?identifier=180>.