

SITOSTEROLEMIA

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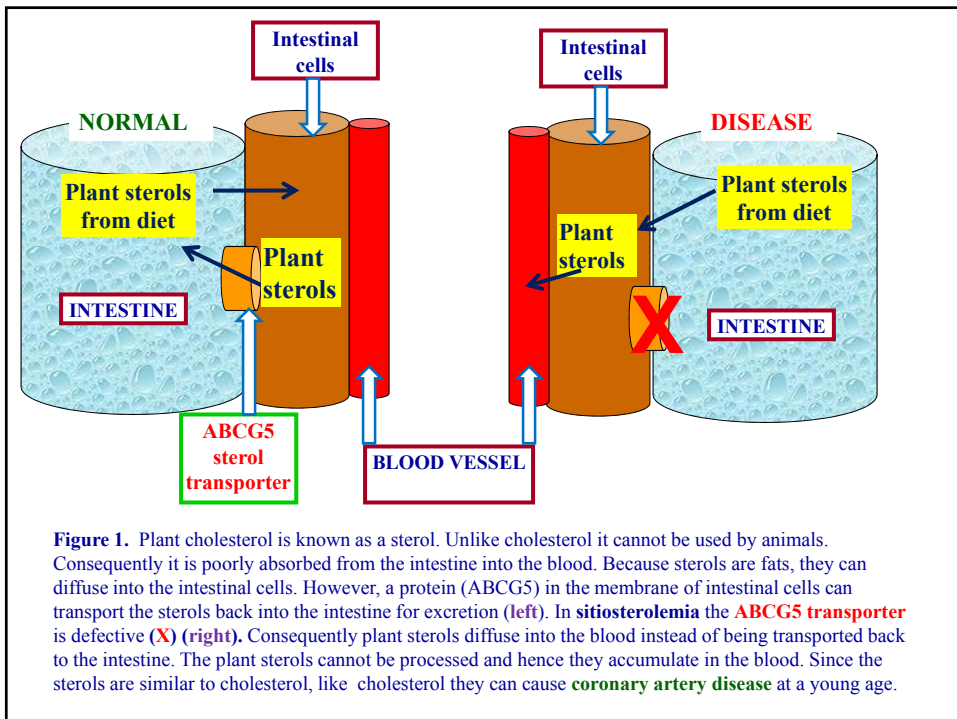


Figure 1. Plant cholesterol is known as a sterol. Unlike cholesterol it cannot be used by animals. Consequently it is poorly absorbed from the intestine into the blood. Because sterols are fats, they can diffuse into the intestinal cells. However, a protein (ABCG5) in the membrane of intestinal cells can transport the sterols back into the intestine for excretion (left). In **sitosterolemia** the **ABCG5 transporter** is defective (**X**) (right). Consequently plant sterols diffuse into the blood instead of being transported back to the intestine. The plant sterols cannot be processed and hence they accumulate in the blood. Since the sterols are similar to cholesterol, like cholesterol they can cause **coronary artery disease** at a young age.