



## TOP 10 QUESTIONS ON SOY & HEART HEALTH

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### 1 Q: Are soyfoods a heart-healthy food?

A: Both the American Heart Association (AHA) and U.S. Food and Drug Administration (FDA) agree that soyfoods contribute to a heart-healthy diet. According to a very recent statement from the AHA, "... soy products such as tofu, soy butter, soy nuts, or some soy burgers should be beneficial to cardiovascular and overall health..."<sup>1</sup> In 1999, the FDA approved a health claim for soy protein and coronary heart disease.<sup>2</sup> As a result, foods containing sufficient soy protein can include a statement about the heart benefits of soy on their label.

### 2 Q: If my blood cholesterol is very elevated, will eating soyfoods lower my cholesterol to the recommended level?

A: No single food or dietary supplement will lower elevated cholesterol to the target goal. A heart-healthy diet—to substantially lower cholesterol—requires making comprehensive changes. This can mean making small changes in a number of different areas of the diet. Scientific research has conclusively shown that adding soy protein-rich foods to the diet can be an important factor in an overall diet that substantially reduces cholesterol.<sup>3-5</sup>

### 3 Q: How do soyfoods lower cholesterol?

A: Soyfoods act to reduce cholesterol in two ways.

1) Traditional soyfoods are high in polyunsaturated fat, low in saturated fat, and cholesterol-free. Because saturated fats raise cholesterol and polyunsaturated fats lower it, consuming foods like soyfoods in place of many traditional sources of protein can reduce cholesterol.<sup>6</sup> 2) Soy protein also directly lowers blood cholesterol levels. This effect has been shown in more than 50 clinical trials.<sup>7,8</sup>

### 4 Q: How much will soyfoods lower cholesterol?

A: The degree to which soyfoods lower cholesterol is different among individuals. People respond differently to foods and to dietary changes aimed at cholesterol reduction.<sup>9</sup> Adding soy protein to the diet reduces LDL-cholesterol (the bad cholesterol) by 3 to 5 percent.<sup>1-7</sup> Over a period of many years, this one dietary change can reduce risk for heart disease by as much as 10 percent.<sup>10-12</sup> In addition, if soyfoods replace foods that are high in saturated fats, the reduction in cholesterol and in heart disease risk will be even greater.

### 5 Q: Does soy protein have heart-benefits beyond lowering bad cholesterol?

A: Soy protein has been shown to lower blood triglyceride levels by approximately 6 percent.<sup>1-7</sup> Triglycerides, a type of fat, are believed to raise risk for heart disease.<sup>13</sup> Soy protein also very modestly raises levels of HDL-cholesterol,<sup>1-7</sup> the good cholesterol that protects against heart disease.<sup>14</sup>

### 6 Q: What other benefits for heart disease do soyfoods have?

A: Studies show that soyfoods may affect a number of risk factors for heart disease. Compounds in soyfoods called isoflavones may directly improve the health of the arteries.<sup>15-19</sup> They also may inhibit clot formation<sup>20</sup> and reduce inflammation,<sup>21</sup> two factors that can lower heart disease risk. More research is needed in these areas, however, before definitive conclusions can be made. Nevertheless, it is clear there are many potential means by which soyfoods can reduce heart disease risk.

### 7 Q: How much soy protein is needed to lower blood cholesterol?

A: The exact amount of soy protein needed to lower cholesterol has not been determined. The FDA has established that people who wish to reduce their cholesterol should consume 25 grams per day of soy protein, but there is evidence that lower amounts of soy protein may be just as effective.<sup>22</sup>

### 8 Q: How often do I need to consume soyfoods to lower cholesterol?


A: People who participated in studies of cholesterol reduction ate soyfoods every day. It isn't yet known what effect less frequent consumption will have. Eating soyfoods several times a day—as is typical in many parts of Asia—may be more beneficial than consuming a large portion of soy once a day.

### 9 Q: Are some types of soyfoods better for fighting heart disease than others?

A: All soyfoods can play a role in a heart-healthy diet, especially if they replace foods high in saturated fat and cholesterol. Soyfoods that are especially protein-rich can make it easier to meet the recommendations for 25 grams of soy protein intake established by the FDA. Since isoflavones may also have coronary benefits, there are benefits to consuming foods that are rich in both soy protein and isoflavones.

### 10 Q: Is too much soy bad for you?

A: Studies show that it is safe for healthy adults to consume even large amounts of soyfoods. However, health experts always recommend choosing a diet based on a variety of foods. Soyfoods are most properly viewed as one of many healthful sources of protein in the diet.

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