

**UNITED SOYBEAN BOARD**

# BIOTECHNOLOGY & HEART HEALTH



## “DO YOU HAVE A FAMILY HISTORY OF HEART DISEASE?”

This is the most common question asked in doctor visits. As well it should be.

Heart disease – an umbrella term used to cover a number of diseases that affect the heart – is the leading cause of death in the United States and many other countries, including Canada and England. **While we can't control risk factors like a family history of heart disease, we can take control of other risk factors such as diet and exercise.**

## LOWERING YOUR HEART DISEASE RISK

In 2006, an estimated 16.8 million Americans were affected by coronary heart disease (CHD), which includes heart attack and angina pectoris. Also, in 2006, 424,892 Americans *died* of CHD (about 20 percent of all deaths in the U.S.), making **CHD the number one killer of Americans.**

## THE GOOD NEWS?

Despite these grim statistics, death rates have decreased by a remarkable 59 percent between 1950 and 1999 and by 33 percent between 1994 and 2004. While much of this is due to improved medical treatment, some of the credit goes to lifestyle changes made by ordinary Americans, like eating a balanced diet, avoiding “bad” fats, trying soyfoods and getting daily exercise to keep weight in check.

Scientists  
are using  
biotechnology  
to increase  
cardio-protective  
omega-3s in  
soybean oil.

## ALL ABOUT OMEGA-3s

For a long time, the American Heart Association has recommended eating two servings per week of fish for the omega-3 fatty acids. **Eating fish containing omega-3 fatty acids is associated with a decreased risk of heart disease.**

However, many Americans do not like to eat fish twice a week, whether due to taste or concern about mercury levels. Additionally, if everyone became a regular fish eater, our oceans could easily be over-harvested.

-more-

# BIOTECHNOLOGY & HEART HEALTH

CONTINUED

To meet this challenge, **scientists are using biotechnology to increase the omega-3s in soybean oil** – a land-based, renewable resource that food manufacturers will be able to add into a wide range of food products from breakfast bars and yogurts to salad dressings. A study presented at the American Heart Association's Scientific Sessions in 2009 showed that this biotech soybean oil was a good source, raising the EPA (a type of omega-3) in volunteers' red blood cells by 17.7 percent.

## AVOIDING THE “BAD” FATS

Beyond boosting heart-healthy omega-3s, biotechnology also helps food companies create food products with less of the fats that consumers should limit or avoid: trans fat and saturated fat.

A range of biotech soybean oils are in use at major food companies to create products without trans fat. Different solutions are needed depending on the type of food – for example, a baked muffin vs. a fried tortilla chip. Other oils that seem to offer trans fat replacements sometimes raise unhealthy saturated fats, so it's important to use technology to develop innovative trans fat solutions with soybean oil.

Speaking of saturated fat, soybean oil is naturally relatively low in this type of fat, but there's always room for improvement. Soon, **biotechnology will help create a new soybean oil variety that's even lower in saturated fat for heart health.**

These biotech innovations will make it easier than ever to eat a heart-healthy diet. But, you can start now with lean meats, whole grains, fresh fruit, vegetables and “good” (unsaturated) fats from nuts and legumes like soy.

**Biotechnology helps food companies create food products with less harmful fats such as trans and saturated fat.**

## UNITED SOYBEAN BOARD

*For more information on Biotechnology and Heart Health, please visit [SoyConnection.com](http://SoyConnection.com).*