

## **Bovine Somatotropin**

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Bovine somatotropin, or BST, is a compound that you may have been hearing about in the news recently. BST, sometimes called bovine growth hormone, is a protein that has been approved by the Food and Drug Administration to administer to dairy cows for the purpose of increasing milk production. Somatotropin is not a new or unique substance. All mammals naturally produce somatotropin in a gland located beneath the brain. When produced by cattle, somatotropin is known as BST.

Somatotropin is necessary to control normal growth processes. For example, if a human does not produce enough human somatotropin during the primary growth years, dwarfism may result. Somatotropin also promotes normal growth and development of mammary glands and stimulates normal milk production.

Researchers discovered that if dairy cows are injected with supplemental amounts of BST, milk production can increase 10 to 15 percent. Because somatotropin is a protein, it must be administered by injection. Otherwise, if BST were given to dairy cows as a feed supplement, the protein would be broken down in the digestive system and have no effect on milk production.

Some consumers have expressed concern over the safety of milk and meat from dairy cows that have been given supplemental BST. Based on years of research, scientists from leading universities, plus medical, health and nutrition organizations from around the world have concluded that the milk and meat from cows given supplemental BST are safe for human consumption. If you drank milk obtained from a BST supplemented cow and a cow not given supplemental BST, the flavor, color and nutrient content of the two milk samples would be the same.

Research has shown that BST is a normal component of cow milk. Milk produced by cows given supplemental BST has the same, normal concentration of BST as milk produced by cows not given extra BST. In addition, the nutrient composition of milk from cows given BST is not different from milk produced by nonsupplemented cows. Although the meat from BST treated cows may have a lower fat content, it is otherwise identical in composition to meat from nontreated cows.

BST is produced by cattle and can also be produced by biotechnology using genetically changed bacteria. Regardless of the source of BST, this protein is broken down in the stomach and small intestine of humans just like other proteins in milk, meat, fruit and vegetables. Even if BST were accidentally injected into a human, there would not be any biological response since somatotropin from other species does not affect humans. There is no doubt that meat and milk from cows given supplemental BST are safe for human consumption.