



Colostrum and the Heart

Dear consumer,

The following reflects the current state of scientific knowledge about what routine dietary supplementation with high quality bovine colostrum will do with respect to heart muscle physiology and function.

Growth hormone is present in bovine colostrum and has been shown to work in concert with IGF-1 in the functioning and repair of the heart muscle. Receptors for both growth hormone and IGF-1 are found on all heart muscle cells and scientific evidence indicates that growth hormone may act directly on the heart, whereas the effects of IGF-1 may be indirect and operate through separate hormonal pathways. Research studies have also shown that both growth hormone and IGF-1 have stimulatory effects on heart muscle cells and it is believed that this occurs through the pathway by which the cells use calcium. It has also been shown that administration of growth hormone to patients with congestive heart failure can induce a marked improvement in heart function and clinical status.

It should also be noted that high quality first milking bovine colostrum does not contain any cholesterol and can be used safely by individuals with high serum cholesterol and high triglycerides.

References:

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Janssen, JA, et al. Serum total IGF-1, free IGF-1, and IGFB-1 levels in an elderly population: relation to cardiovascular risk factors and disease. *Arterioscler Thromb Vasc Biol* 1998 Feb;18(2):277-82.

Bayes-Genis A et al The insulin-like growth factor axis: A review of atherosclerosis and restenosis. *Circ Res* 2000 Feb. 4;86(2):125-30.

I hope that the above information is useful and answers your questions.

To your good health - always.

Sincerely,
Alfred E. Fox, Ph.D.

Dr. Alfred E. Fox holds a Ph.D. from Rutgers University in Microbiology (Immunochemistry) and has more than 25 years of senior management experience at Carter-Wallace, Baxter Dade Division and Warner-Lambert, where he was responsible for research and development and regulatory affairs. He was also the founder and president of two biotechnology companies focused on agribusiness and environmental monitoring, respectively. For the past 15 years, Dr. Fox has been the President of Fox Associates, a business and technology consulting firm serving small- to mid-size companies in the human and animal healthcare fields. He focuses primarily on marketing and regulatory issues and for the past 10 years has continuously consulted to bovine colostrum manufacturers, where he has gained regulatory approval for their products, been a technical advisor, helped design and develop marketing strategies and served as an expert witness in legal matters.

