

# **Colostrum for Asthma and Associated Sinus Problems**

September 30, 2009; By Dr. Anthony Kleinsmith

Dear consumer,

Your inquiry regarding the use of colostrum for individuals suffering from asthma and sinus problems has been forwarded to me. I am a business and technology consultant with extensive knowledge regarding the formation and composition of bovine colostrum and its medical applications in humans and animals.

Asthma is a disorder of the respiratory system in which the passages that enable air to pass into and out of the lungs narrow, causing wheezing, coughing and shortness of breath due to a restriction of air intake. More than 17 million Americans suffer from asthma and it occurs equally in males and females and in all ethnic and socio-economic groups. The prevalence of asthma increased more than 60% in Americans between 1982 and 1994. Scientists suspect that the sharp increase was due to more exposure to second-hand smoke, growing populations in polluted city centers and new housing that was poorly ventilated.

Asthma attacks occur when the bronchi and bronchioles become inflamed, usually by contact with a triggering irritant such as pet hair or cigarette smoke. This reduces the space through which air can travel through the lungs, causing the lungs to work harder to move air in and out. The attack usually begins with mild chest pressure and a dry cough and, as the attack intensifies, wheezing develops and breathing becomes difficult with the cough producing a stringy mucous. Since the airway inflammation prevents some of the oxygen-rich air from reaching the alveoli, the cells of the body start to burn oxygen at a higher rate, which actually increases the body's demand for oxygen.

Inflammation of the airway occurs when an irritant comes into contact with the airway walls. The body's immune system detects the irritant as foreign and releases an immunoglobulin of the IgE class that can attach to the irritant. This triggers the release of specialized white blood cells, known as mast cells, that head for the site of irritation. When they get there, the mast cells release histamine, a chemical substance that causes swelling and redness as part of an inflammatory response. This causes the muscles lining the airway to contract even more, narrowing the passage further. The cells

that line the airway overreact to the inflammatory response and secrete a lot of mucous, which clogs the bronchioles and causes the wheezing.

The most common causes of asthma attacks are extremely small and lightweight particles that are transported through the air and inhaled into the lungs. For many people, the environmental triggers are allergens like plant pollen, mold spores, animal dander and fecal material from dust mites and cockroaches. The triggers can also be physiological, like exercise and infections such as the common cold. Alternatively, attacks may be brought on by substances found in food, such as the sulfites used to preserve beer and wine, and in medications like aspirin and ibuprofen.

Your friend's sinus problems are likely linked closely to her asthma. The paranasal sinuses are air-filled, mucous-lined cavities in the head and cheekbones and in the frontal bone just above and between the eye sockets. The sinuses all drain into the nasal cavity. The sinuses are often infected with bacteria, causing inflammation and severe pain. Environmental and chemical irritants, as well as most allergens, can similarly cause a mild to severe inflammatory response in the sinuses. In all cases, the inflammation results in overproduction of mucous by cells lining the cavities. Repeated attacks often lead to a thickening of the mucous membranes and, sometimes, scarification requiring surgical intervention, which frequently provides only temporary relief.

So what can be done about all of this. The answer is routine dietary supplementation with a high quality bovine colostrum and here is why.

First, allergic reactions and asthma are manifestations of an immune system that is out of control. The problem is that at about age 13, the body's health support mechanisms began to deteriorate. Before puberty, when you were just a young child, the very foundation of your immune system was being established by a small gland-like structure in the upper chest, the thymus. It is within this structure that the cells mature that will determine the appropriate type of response that your immune system should mount after an insult and then cells from the same source will regulate the quality and intensity of that response. Cells from this gland also scan the blood for abnormal cells and remove them. After puberty, the thymus begins to shrink and ultimately almost disappears by age 50-60. So, although the immune system develops more immunologic memory with time, it gradually loses the ability to efficiently and effectively orchestrate and direct the actual immune response itself.

When dealing with any type of inflammatory condition, including an infection, it is wise to recognize that the best defense is founded on a good offense. Scientific studies have shown that insulin-like growth factor (IGF-1), a major component of high quality bovine colostrum, and the IGF superfamily of proteins can restore and maintain a fully functional thymus, even in adults. In addition, colostrum contains the alpha and beta chains of the hormone thymosin that act independently and in concert to regulate the functions of the thymus. Further, the proline-rich peptide (PRP), also known as thymulin, in colostrum is known to down-regulate the immune system and keep the response to a foreign substance under control. Other studies have shown that including only small amounts of colostrum in the daily diet of adult animals significantly enhances the ability of their white blood cells to respond to infection and destroy invading bacteria and viruses.

Thus, routine dietary supplementation with a high quality first milking colostrum, like that from Immune-Tree, will strengthen and support the immune system and help your friend to keep her immune system operating at an optimum level and hold the inflammatory response in check or, at a minimum, reduce the impact of the asthma attacks. I would suggest that she routinely consume 5-6 500 mg capsules or the equivalent powder daily and that she attempt to increase this to 8-10 capsules daily during the periods when she historically has experienced the most frequent attacks. I hope that the above information gives you a better understanding of your friend's condition and the benefits that can be realized by routinely supplementing the diet with Immune-Tree's colostrum.

#### References:

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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.