



## The Components of Elk Velvet Antler

Components	Function
Calcium	Provides structure for bone and teeth and is essential for nerve impulse conduction, muscle contraction and blood clotting.
Copper	Necessary for red blood cell development, bones and nerves.
Iron	Essential for blood cells transporting oxygen throughout the body.
Manganese	Needed for development of bones and connective tissue, and for normal functioning of the nervous system.
Magnesium	Needed in metabolic reactions and storing and releasing energy in cells.
Phosphorus	Provides structure for bones and teeth and is a component of nearly all metabolic reactions.
Potassium	A necessary component for nerve and muscle function.
Selenium	A powerful antioxidant.
Sulfur	A component of various amino acids and insulin.
Zinc	Part of the enzymes involved in digestion and respiration, and is necessary for normal wound healing and skin health.
Insulin-Like Growth Factor (IGF-1)	Small proteins produced naturally by the liver through stimulation of growth hormones, IGF-1 is a growth regulating factor and functions to increase lean body mass, reduce fat, build bone, muscle and nerves while assisting in glucose metabolism. IGF-1 encourages the absorption of both chondroitin sulfate and glucosamine sulfate. Low levels of IGF-1 seen in aging may reflect as muscle atrophy.
Epidermal Growth Factor (EGF)	Growth promoting actions on the skin.
Proteins	Essential amino acids which are the structural material in cells, aid in the growth and repair of tissues.
Collagen	A major structural component of bones, tendons, ligaments, and cartilage.
Lipids	Essential fatty acids including Omega 3 and 6 which are cell components and boost energy for cellular activity.
Hyaluronic Acid	The cement material of connective tissue and component of synovial fluid that 'cushions' the joint.
Chondroitin sulfate	An extremely potent anti-inflammatory agent with long lasting effects. Of the glycoaminoglycans in EVA, almost 90% is chondroitin sulfate.
Glucosamine sulfate	A naturally occurring amino sugar with 'glue-like' qualities to help hold tissues together and a major component of synovial fluid, which lubricates and serves as a shock absorber for joints.
Erythropoietin	A hormone naturally produced in the kidneys and released into the bloodstream in response to low oxygen levels and helps to increase oxygen-carrying capacity of the blood.
Prostaglandins	A chemical messenger produced in virtually all tissues, causing a broad range of positive effects on many of the body's defense systems.
Phospholipids	An effective structural material in cell membranes that helps facilitate the passage of fat in and out of cells and blood.
Glycosphingolipids	Involved in cell metabolism and growth.
Keratin Sulfate	A network of intracellular filaments supportive of immune function.

Created by Delores E. Gockowski, DVM. Excerpted in part from "Velvet Antler-A Gift From Nature" by Cindy Ewashkiw, DT and Marion Allen PhD, RN.