Aminocaproic Acid

What is aminocaproic acid?
Aminocaproic acid is an anti-fibrinolytic agent (that is an agent that prevents the breakdown of fibrin, a protein needed for proper blood clotting) advocated by R.M. Clemmons, Associate Professor of Neurology and Neurosurgery at the University of Florida Veterinary College for the treatment of degenerative myelopathy (DM), a condition in which nerve tissue breaks down, in German Shepherds. While aminocaproic acid has been shown to provide very little benefit in the treatment of spinal cord trauma, Dr. Clemmons believes it can contribute significantly to a favorable outcome in up to eighty percent of cases of German Shepherd degenerative myelopathy (GSDM), especially when used with other supplements and diets. Details on the protocol can be found at http://neuro.vetmed.ufl.edu/neuro/DM_Web/DMofGS.htm.

Aminocaproic acid is used to intervene at a critical stage in the development of GSDM. Dr. Clemmons believes that the spinal cord is indirectly attacked by the immune system in degenerative myelopathy. Antibodies sometimes clump around antigens, which are compounds that are considered “foreign” to the body and stimulate the immune system. These clumps normally float in the bloodstream until they are either filtered by the liver or spleen. Occasionally they instead stick to and damage blood vessel walls, stimulating the formation of a blood clot. Clots are normally broken down through inflammation, but if the clot happens to be in a delicate tissue, then the inflammation that breaks it down can cause severe collateral damage. Aminocaproic acid is thus used to inhibit clot breakdown in the delicate tissues of the nervous system. A similar benefit of aminocaproic acid in the treatment of multiple sclerosis in humans has also been speculated, since proteins that break down blood clots seem to also have an affinity for damaging myelin, the sheath around nerves that allows them to function.

How successful is aminocaproic acid?
This is difficult to answer as aminocaproic acid is not used by itself in the treatment of DM, and DM has a variable course in some pets. Theoretically, aminocaproic acid with other prescribed supplements should help pets with DM, and some dogs seem to show positive results. Clemmons estimates the response rate in German Shepherds may be as high as 80 percent. It is extremely difficult to confirm aminocaproic acid as effective using controlled clinical studies since degenerative myelopathy occurs very sporadically and can really only be confirmed during an autopsy or through use of an MRI (magnetic resonance imaging).
**How safe is aminocaproic acid?**
Aminocaproic acid is safe when used as directed under veterinary supervision. Mild gastrointestinal irritation may occur.

**Where do I get aminocaproic acid and do I need a prescription?**
A prescription is needed for aminocaproic acid. Best results seem to be achieved with oral use of the powdered preparations originally intended to be used for injection. Tablet forms are considered too expensive and not as effective.