

Amlodipine

Amlodipine is a member of a class of medications called *calcium channel blockers*. These agents prevent the entry of calcium from the bloodstream into certain types of muscle cells, with the specific cell type depending on which calcium channel blocker is used. Amlodipine preferentially blocks calcium from entering the muscle cells that line the walls of blood vessels. It is these cells that contract (squeeze) and generate pressure inside blood vessels throughout the body. Since they require calcium for contraction, use of amlodipine results in relaxation of blood vessels and reduction of blood pressure.

Due to this property, amlodipine is also classified as a *vasodilator*. That is, as described above, it causes blood vessels (vaso-) to relax and open more widely (dilate). Because it acts mainly on arteries, it is particularly useful in the treatment of elevated arterial blood pressure, or *hypertension*. It may also be employed in some cases of congestive heart failure (buildup of fluid in or around the lungs), where lowering blood pressure makes it easier for the heart to pump blood forward into arteries.

Blood pressure is measured prior to initiation of therapy with amlodipine – as mentioned above, abnormally high blood pressure is the most common reason for this medication to be prescribed. It is measured again several days later, and periodically thereafter, in order to assess the response to therapy. The need for other diagnostic testing is dictated by which other medical conditions are being managed, if any. For example, blood work may be performed to monitor kidney values, or chest x-rays may be used to monitor congestive heart failure.

Side effects of amlodipine are uncommon and occur if its use leads to excessive lowering of blood pressure. Symptoms that may be observed include loss of appetite, lethargy, weakness, or rarely collapse or fainting. If you notice any of these symptoms, or if you have any questions or concerns, please call your veterinarian or Veterinary Specialty Services immediately to discuss an appropriate plan. Problems that are caught early are more easily corrected and less likely to require a visit to the hospital. If you feel that the problem should not wait and requires immediate attention, then an emergency visit is warranted.