

# Hydralazine

**Hydralazine** is a potent arterial *vasodilator*. That is, it is a medication that causes relaxation (dilation) of the muscle cells found in the walls of arterial blood vessels. The result is that the arteries open wider, and blood pressure becomes lower. When used cautiously, this property is very useful in the treatment of conditions where blood pressure is higher than desired.

The most common use of hydralazine is in the treatment of congestive heart failure. Here, although adequate blood pressure remains important, excessive blood pressure represents an added load against which the failing heart must push. Modest lowering of the pressure in the arteries downstream of the heart reduces this workload. If more blood is allowed to be pumped forward, then the backup of fluid that defines congestive heart failure is less likely to occur. Currently, hydralazine is typically added to treatment for heart failure when another vasodilator (usually a drug called “enalapril”) is inadequate alone to produce the desired effect.

Due to the potency of its vasodilating effect, therapy with hydralazine must be initiated carefully. This typically includes a morning appointment followed by hospitalization throughout the day. Prior to the first dose, blood work is performed to evaluate kidney function for future comparison, since treatment with vasodilators may cause measured kidney values to become elevated. Blood pressure is then measured before and at several time points after the first dose in order to ensure that blood pressure remains at an acceptable level. If this therapeutic trial is successful, then this dose is continued twice daily. Kidney values and blood pressure are re-evaluated within the next 3-5 days. Chest x-rays may also be recommended to look for improvement in the congestive heart failure. Therapy may be adjusted as necessary based on the results of these tests.

Side effects of hydralazine are those associated with low blood pressure. As mentioned above, kidney values may become elevated as a result of poor blood flow to the kidneys. Symptoms may include loss of appetite, lethargy, weakness, or fainting. If heart failure progresses in spite of the addition of hydralazine, signs observed may include coughing (in dogs), intolerance to exercise, rapid or labored breathing, or abdominal distension.

Any change in the administration of hydralazine should be discussed first with a doctor. If any of the above symptoms are noted, or if you have any questions or concerns, it is important that you contact your veterinarian or Veterinary Specialty Services immediately to discuss an appropriate plan. Problems caught early are more easily corrected and less likely to require hospitalization.