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# Prazosin (Minipress)

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#### (For veterinary information only)

#### WARNING

The size of the tablet/medication is NOT an indication of a proper dose. Never administer any drug without your veterinarian's input. Serious side effects or death can occur if you use drugs on your pet without your veterinarian's advice.

# **Brand Name: Minipress**

Available as: 1 mg, 2 mg & 5 mg capsules (frequently must be compounded for smaller animals)

# Background

Our muscles can be used in voluntary activities such as running and walking as well as in involuntary activities such as intestinal contraction and pupil constriction. Involuntary (automatic) activities are controlled by the autonomic nervous system, which is divided into the sympathetic and the parasympathetic nervous systems. The sympathetic system supports the fight or flight response while the parasympathetic system supports normal, every day body functions.

The sympathetic system uses receptors called alpha and beta receptors to exert its effects. These receptors are located in all the organs controlled by the sympathetic nervous system, some organs using alpha receptors and some using beta receptors. Alpha and beta receptors are further divided into alpha-1 and alpha-2 and beta-1 and beta-2 receptors. These receptors can be enhanced or blocked by medication depending on the effect desired.

Prazosin is an alpha-1 blocker. The sympathetic system is in charge of urine storage (versus urination). Blocking the alpha-1 receptors in the urethral sphincter serves to relax the muscles and dilate the urethra to allow for easier urination.

Alpha-1 receptors are also in the peripheral blood vessels. Prazosin serves to relax these muscles as well, thus allowing for a reduction in blood pressure and enlargement of blood vessels, both veins and arteries.

#### How This Medication Is Used

The two scenarios where prazosin is most commonly used are in cardiovascular disease and in alleviating difficulty in urination.

**Urinary conditions**: If a narrowing of the urethra is making urination difficult, the alpha-1 blockade of prazosin may make it more comfortable. It is commonly used in cats after an <u>idiopathic cystitis</u> blockage, in patients with bladder or prostate tumors, or patients with spinal disease.

**Cardiovascular disease**: prazosin might be used to reduce <u>high blood pressure</u> or even to manage <u>congestive heart failure</u>.

Prazosin is best given with food with most dosing regimens including administration 2–3 times daily. If a dose is accidentally skipped, it can be given when it is remembered as long as timing of the next dose is appropriate. Do not double up on the next dose. Store prazosin at room temperature.

# Side Effects

Because one of its main functions is to reduce blood pressure, some patients may be weak or tired if their blood pressure drops too low. A dosage adjustment may be necessary.

Racing heart rate, hyperactivity, or increased body temperature are side effects that should be reported to your veterinarian.

#### Interactions With Other Drugs

In humans, tolerance has been a problem with prazosin, meaning that after a while it doesn't work anymore. Using the diuretic spironolactone concurrently seems to ameliorate this phenomenon.

Some patients require multiple drugs to control blood pressure but it is important to note that hypotensive agents should not be combined without realizing that their effects will likely be additive.

# **Concerns And Cautions**

Prazosin may not be a good choice for patients with pre-existing low blood pressure.

Dogs with the ABCB1 (formerly called the MDR1) mutation may be sensitive to this drug, just as they are sensitive to many drugs. Prazosin may not be a good choice for such individuals. Dogs with this mutation are usually of the collie family but individuals may be genetically screened by Washington State University. See information on <u>screening</u>.

Prazosin is best given with food.

It is our policy not to give dosing information over the Internet.

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