

Furosemide

Furosemide (often referred to by one of its brand names, either **Lasix** or **Salix**) is a *diuretic* medication. That is, it causes an increase in the amount of urination. It does this by preventing the kidneys from retaining water and electrolytes, resulting in their loss from the body in urine. This loss of water is useful in conditions characterized by excessive retention of fluid within the body.

The most common use of furosemide is for the treatment of congestive heart failure. Heart disease causes the heart to be inefficient as a pump for blood, resulting in a drop in blood pressure. The kidneys respond by retaining extra water within the body in an attempt to maintain adequate blood pressure. Although this would seem to be an appropriate response, this extra fluid only increases the burden on an unhealthy heart. As heart disease progresses and water retention continues, there comes a point when the volume of fluid in the body is too great a work load for the heart, and fluid “spills over” from blood vessels into the lungs or body cavities. This is called congestive heart failure.

By causing an increase in urination, furosemide combats the fluid overload associated with heart failure. The goal is to remove enough fluid from the body to resolve the heart failure, but not so much fluid that blood pressure and electrolyte levels become unacceptably low. Striking the correct balance requires attention to both the heart and kidneys, two of the organs most concerned with the amount of fluid in the body.

Before beginning therapy with furosemide, blood work and urine analysis should be performed to obtain baseline information regarding kidney function and electrolytes. Following initiation of treatment, blood work is repeated in order to monitor kidney values, electrolyte levels, and hydration status. Chest x-rays are often obtained as well in order to assess response to therapy for heart failure. Medications may be adjusted or added depending on the results of these tests.

The most common side effect of furosemide is an increase in thirst that occurs as a result of increased urination. In order to avoid dehydration, it is very important that your pet **always** have unlimited access to water. Restricting water intake will not reduce the amount of urination, and will predispose to dehydration. If dehydration does occur, or if electrolytes become depleted (particularly potassium), symptoms may include lethargy, weakness, and loss of appetite. If the prescribed furosemide dose is insufficient to control the heart failure, you may see return or worsening of coughing (in dogs), intolerance to exercise, rapid or labored breathing, or abdominal distension. If any of these symptoms are noted, or if you have any questions or concerns, please contact either your veterinarian or Dr. Marshall immediately to discuss an appropriate plan.