



# URINE SCALDING

Urine scalding, or wetting of the skin and fur around the bottom area with urine, can be a frustrating condition to treat in rabbits. It can be caused by many conditions and in most cases the first step is a complete examination of your rabbit to try to narrow down what might be going on.

## Bladder Stones and Sludge.

Rabbits have a complex calcium absorption system that non-selectively absorbs almost all of the calcium that they eat. The excess calcium that is absorbed is excreted by the kidneys into the bladder and ultimately urinated out. If a rabbit eats a diet that is too high in calcium then over time this can lead to the formation of 'stones' or 'sludge' (sand-like material) within the bladder. High calcium diets that include pellets, grains, lucerne, clover or alfalfa can contribute significantly to this problem.

We can generally diagnose this condition with abdominal radiographs (x-rays). Treatment of this condition often includes diet changes, encouraging increased water intake (ie providing more access to fresh water) to promote frequent urination and flushing of the bladder contents as well as a number of different medications.

## Kidney Conditions

Various kidney conditions (including kidney failure) can cause an increase in the amount of water your rabbit drinks. This then increases the amount of urine excreted and can cause scalding. Kidney conditions can generally be diagnosed with blood and urine tests. Some kidney conditions such as blockages and cancers may only be obvious with an ultrasound or other advanced imaging modality such as CT.

## Bladder Conditions

Bladder infections and some bladder cancers can also show up as urine scalding. Although bladder cancers require an ultrasound to diagnose, infections can generally be diagnosed with a urine test. Bladder infections are often very responsive to antibiotics however often have an underlying cause (bladder stones, uterine disease, kidney conditions). These often merit further investigation.

## Uterine Problems

The most common cause of urine scalding in unsterilized female rabbits is uterine disease. 80% of female rabbits over 2 years of age have abnormal changes present within their uterus. The changes present can be a number of things including endometriosis or uterine cancer. In these cases, desexing often solves the urine scalding.





## **Arthritis**

Underlying arthritis or mobility issues is also a common cause of urine scalding. This can often be the cause even when your rabbit is showing a complete range of movement and acting normally. In many cases radiographs (x-rays) will show changes around the hip and spine however this is not always the case and in some instances it is not until we treat this condition that the urine scalding starts to improve.

## **Neurological Problems**

This can be one of the most difficult conditions to diagnose and successfully treat and this condition is often considered when we have rule out other problems. Neurological problems can stem from damage to the spinal cord (i.e. injury or E. Cuniculi infection) or from the nerves controlling the bladder itself. Although certain conditions may be seen on radiographs it is very difficult to measure nerve control. Treatment is often with anti-inflammatories and alternative treatments (acupuncture) may also help. This condition is often permanent and housing changes may be required.

If you have any questions or concerns about your rabbit please don't hesitate to contact us.

