

Kidney problems in chameleons

Mammals and chameleons have two kidneys. The purpose of the kidneys is to remove toxins from the body.

How do the kidneys function?

In mammals all fluid taken in by the body is processed by the kidneys; these include cups of tea, soft drinks and of course water. The kidney ensures that there is enough water to keep the body hydrated. Any water not required is stored in the bladder until it is passed as urine, which in most mammals is a clear yellow liquid.

The kidneys of reptiles work differently. They do not have the ability to retain water within the body. Reptile urine is a mixture of water and a solid white material called uric acid. The chameleon has developed other unique ways to keep the body hydrated. Their urine is stored in the urodeum part of the cloaca and passes out of the body through the vent.

There is a small flap inside the urodeum that can move water into the large bowel where it is reabsorbed into the body. The chameleon can also absorb water up through the vent whilst bathing, so if you feel your chameleon is becoming dehydrated increased bathing may help with hydration levels.

What is gout?

Gout is a condition caused by too much uric acid in the body. The uric acid presents itself as solid white material which can easily be spotted in the urine. Sometimes if the uric acid levels are too high these hard crystals deposit themselves in the muscles, joints and organs causing damage.

Make sure your chameleon always has enough water to drink because dehydration can contribute to the development of gout. Feeding a balanced nutritious diet to your chameleon will also help to prevent gout.

Gout is a serious condition and is likely to need veterinary treatment.

What about kidney failure?

There are many causes of kidney failure. These may include infections, inflammation and toxic damage. A chameleon with kidney failure may become less active than usual, lose his appetite, suffer weight loss and become dehydrated.

To avoid kidney failure your chameleon's housing must be maintained at the correct temperature. The daytime temperature should be around 21-40°C/69.8-104°F. The vivarium should have two ends, the higher temperatures being the basking end of the vivarium and the other end the lower temperature where the chameleon can go to cool off.

Your chameleon also always needs to have access to drinking water which they will drink from water droplets that drip from plants and a furnishing. Misting 2-3 times a day is vital.

A correct diet is also vital but be careful not over dust food with calcium powder or over feed gut loaded insects with calcium feeds, as this can also damage the kidneys. A good diet also helps to support the immune system.

Getting to know your chameleon's activity level will also help you spot when he becomes less active and could help you spot signs of kidney failure.

Any weight loss or change in eating habits needs a visit to the veterinarian!
It's important to weigh your chameleon weekly and monitor his eating habits to help you pick up on any changes.