

## **Caring for your Rabbit - E.cuniculi**

### **What is it?**

Encephalitozoon cuniculi is a tiny parasite that infects cells in the body. Once a cell is infected, the parasite multiplies, eventually causing the cell to rupture. This releases the parasite to infect new cells. The body responds to the rupture of a cell with a large amount of inflammatory cells causing a granuloma.

### **How do rabbits become infected?**

The infective spores of E.cuniculi are released into an infected rabbit's urine. A new rabbit becomes infected by eating or inhaling these spores which will be left on the grass or bedding.

### **What does E.cuniculi cause?**

Any cell in the body can become infected but the main areas are the kidney and the central nervous system (brain and spinal cord). If a rabbit is infected via the placenta before it is born, cataracts are common. Signs of kidney problems include weight loss and excessive urine staining around the back end of your rabbit.

Signs of central nervous system infections include a head tilt, behavioural changes, paralysis of the hind legs or even sudden death in very severe cases.

It is worth noting that there are several other conditions that can also lead to these signs.

### **How do i know if my rabbit is infected?**

Diagnosis of E.cuniculi is challenging. It has been shown that more than half of pet rabbits in the UK test positive for E.cuniculi antibodies. This means that they have come across the parasite but does not necessarily mean that they are still infected or that they will develop the disease.

### **Can E.cuniculi be prevented / treated?**

A 28-day course of fenbendazole (lapizole or Panacur rabbit) has been shown to clear the parasite from infected rabbits.

Once the rabbit shows signs of disease, the damage to the cells can not be reversed so a full recovery may not occur even after 28 days of treatment.

### **When should i treat my rabbit?**

Treatment is definitely needed if your vet suspects that E.cuniculi is a cause of disease in your rabbit. To protect your rabbit as much as possible, you can give a 28day course of treatment as soon as you get your new pet and a 9 day course around the time of possible new exposure (new rabbit, or boarding your rabbit). Be aware however, that although most common in rabbits E.cuniculi spores can be spread by other species e.g rats.

Fenbendazole is generally considered a safe drug, however there have been reports of blood cell problems after prolonged use so it makes sense not to over-treat rabbits with this medication.

### **Can E.cuniculi affect humans?**

Healthy humans who are exposed to E.cuniculi do not become infected, however it can cause serious disease with immune-compromised humans (e.g those with AIDS or on chemotherapy or other immune-suppressive drugs). If you are concerned that this may be a problem, it would be best to get your rabbit tested for the parasite and treated if it tests positive.