

Polycystic kidney disease



Polycystic kidney disease (PKD) is an inherited condition (passed from parents to their kittens) that can cause progressive kidney failure in cats. Affected cats most commonly develop signs of kidney failure at around 7 years of age. The Feline Advisory Bureau (FAB) has set up a scheme in the UK whereby cats can be tested for the disease before being used for breeding. In the future it may be possible to eliminate this potentially fatal disease by careful breeding from unaffected individuals.

What is PKD?

PKD is a genetic condition that can cause severe kidney failure in cats. The disease is caused by an abnormal gene. All cats with the abnormal gene will develop the disease, but because the signs of disease usually do not develop until the cat is adult, it is possible for a cat to breed extensively (and pass the disease on to its kittens) before the disease is recognised. The disease causes small, fluid filled holes (cysts) to form in the kidney, and these gradually get larger as the cat gets older. As the cysts get bigger they replace the normal kidney tissue and the kidney is unable to work normally. Kidney failure is inevitable.

Which cats are at risk of PKD?

PKD is a very rare condition in the typical pet cat. The chance of a cat developing PKD is higher if it belongs to one of a few breeds. Persian cats throughout the world appear to have a high chance of having PKD. A recent study has shown that 4 out every 10 Persian cats in the UK are affected, and numbers are similar throughout the world. Other breeds, related to Persians, are also at high risk of the disease. The disease is common in Burmillas and 1 in 5 Exotic shorthairs in the UK test positive for PKD.

How do I know if my cat has PKD?

Cats can be screened for the presence of disease before they start to show signs of kidney failure. If your cat belongs to one of the breeds at risk of PKD then it may well have come with some sort of certification from the breeder. Breeding cats should be screened for PKD before they breed and only cats with a negative test result should be allowed to breed. If a cat's parents are both free of the disease then it will not have disease. If your cat is in a high-risk breed group and its parents have not been tested then you can arrange for a screening test to be done.

A DNA test has just been developed that can identify cats carrying the abnormal gene. The test can be done on DNA extracted from a swab taken from inside the cat's mouth. Currently this test is only available in the US.

What does the ultrasound test involve?

The test for PKD is quite simple. The cat's kidneys are scanned with ultrasound (just like pregnancy testing in humans) to see if any cysts can be seen. Some cats will need to be sedated so that they will lie still enough for examination and sometimes a small patch of fur will need to be clipped so that the ultrasound can get good contact with the skin. Cats must be 10 months old before they can be given a certificate to say that they do not have PKD, because the cysts may be too small to detect before this time. In order for a breeding certificate to be issued the cat must have a microchip implanted at the time of scanning so that its identity can be checked.

Where can I get my cat tested for PKD?

The ultrasound test for PKD requires special facilities (so that you can be sure that the result is accurate). Your vet will usually have to refer you to a specialist if you require a certificate. If you are not planning to breed from your cat (or you do not require a certificate) your own vet may be able to scan your cat and tell you whether or not your cat has kidney cysts.

Can PKD be treated?

Cats with PKD have progressive kidney disease that will ultimately lead to kidney failure. The disease cannot be treated but if your cat does develop renal failure there are some treatments that may help to improve its quality of life. Sadly the disease is ultimately fatal. The only way to prevent future cats suffering the same fate is to make sure that affected cats are not allowed to breed.

**How do I find a kitten without PKD?**

Reputable breeders will have all their breeding cats tested for PKD. They should only be breeding from cats without PKD. If both parents are free of disease the offspring will all be unaffected. Occasionally a breeder needs to have a litter of kittens from an affected cat, provided the other parent is disease free, some of the kittens may be unaffected. The kittens can be scanned to check whether they have the disease or not. Remember that it is not possible to confirm that a cat does NOT have PKD before 10 months of age (although severely affected individuals may be detected earlier).

How is PKD passed on?

PKD is an inherited disease passed from parents to offspring in the genes. It is not contagious and affected cats are born with the disease (although signs may not develop until later in life).

How can I find out about screening tests?

The Feline Advisory Bureau can give advice on the disease and the screening tests scheme; for further information contact the Feline Advisory Bureau, Taeselbury, High Street, Tisbury, Wilts SP3 6LD. Tel: 01747 871872; Fax: 01747 871873; Email: fab.fab@ukonline.co.uk; Website: www.fabcats.org.

If you want any other information on health issues concerning your cat please contact Orwell Veterinary Group on 01473 333677 and we will be happy to advise you.