Polycystic Kidney Disease in Cats

What is polycystic kidney disease?
Polycystic kidney disease (PKD) is an inherited condition in cats that causes multiple cysts (pockets of fluid) to form in the kidneys. These cysts are present from birth. Initially they are very small but they grow larger over time and may eventually disrupt kidney function resulting in kidney failure.

All cats that are affected by polycystic kidney disease have cysts in their kidneys, but the number of cysts and the rate at which the cysts enlarge is variable. In most cats, the cysts enlarge slowly and affected cats will not show any signs of kidney disease until later in life, typically around seven or years of age. In some cats kidney failure will occur at a much younger age while in other cats kidney failure will not develop at all. There is currently no way of predicting how rapidly the disease will progress in a particular cat.

What causes polycystic kidney disease?
Polycystic kidney disease (PKD) is an inherited disease. Unfortunately, PKD has become very common in certain cat breeds. Persian cats have the highest incidence of PKD. Studies have shown that around one-third of Persian cats are affected by the disease. Other cat breeds that have been developed using Persian bloodlines such as Chinchillas and Exotics also have a significant number of affected cats. In the majority of cats, especially mixed breeds, it is a rare condition.

PKD is the result of a single, autosomal, dominant gene abnormality. This means that:
Every cat with the abnormal gene will have PKD. There are no unaffected carriers of the gene.

Every cat with PKD will have the abnormal gene and can pass the gene onto its kittens, even if that cat only has a few small cysts in its kidneys or has no clinical signs.

A cat only needs one of its parents to be affected with PKD in order to inherit the abnormal gene and be affected itself.

Every breeding cat with PKD will pass the disease on to a proportion of its kittens, even if it is mated with an unaffected healthy cat.
**How is PKD diagnosed?**

How is PKD diagnosed? Early diagnosis is imperative if the cat is going to be bred. The diagnosis is based on breed, medical history, clinical signs, blood and urine tests and ultrasound evaluation of the kidneys. PKD is best diagnosed by an experienced ultrasonographer. Special radiographic dye studies may also be used in certain situations.

**What is the treatment for PKD?**

What is the treatment for PKD? There is no specific treatment for PKD. Treatment is directed at improving the underlying kidney failure. Special diets, fluid therapy and medications to reduce nausea and vomiting and to block the absorption of phosphorus are often used. It is very important to verify that a Persian kitten you are interested in is not carrying the PKD gene. Since PKD is normally inapparent until middle age, you should ask for a complete genealogy and results of ultrasound evaluation of both parents. There are efforts in the United Kingdom to create a registry of healthy Persians in an attempt to eradicate this devastating disease.

*This client information sheet is based on material written by Ernest Ward, DVM*  
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