Polycystic Kidney Disease

About the disease

Autosomal dominant polycystic kidney disease (AD-PKD) is a problem in Persian cats and related breeds, especially Chinchillas, Exotics and British Shorthairs. The Molecular Diagnostic Unit has been offering a genetic test to diagnose autosomal dominant polycystic kidney disease (AD-PKD) in cats since April 2005.

About the test

This genetic test is a PCR-based pyrosequencing assay and evaluations of the test have shown excellent agreement with the results of ultrasound screening. The test has revolutionised testing for AD-PKD.

Until recently specialist ultrasound scanning was been required for diagnosis, but the identification of a specific genetic mutation associated with feline AD-PKD means that PCR can now be used to identify Affected cats.

Cats screened using our genetic test and found to be negative for the PKD mutation can be listed on the ICC PKD negative register.

The following graph shows the percentage of PKD Affected cats detected by the Molecular Diagnostic Unit between 2005 and 2018. This clearly shows a decline in the percentage of cats testing positive for the AD-PKD genetic mutation, which is likely due to AD-PKD screening and selective breeding.
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Interpretation of results

A **Normal** AD-PKD genetic test result means that the cat does not have the respective genetic mutation.

An **Affected** AD-PKD genetic test result means that the cat has one normal and one mutant copy of the PKD1 gene. Presence of the mutant PKD1 gene has been strongly associated with polycystic kidney disease.

Each certificate we issue will specify whether the cat is Normal or Affected for the PKD1 mutation.

FAQs

**Can my cat be included on the ICC negative register?**

Yes it can! Cats screened using our genetic test and found to be negative for the PKD mutation can be listed on the ICC PKD negative register.

For Inclusion on the ICC PKD Negative Register, the sample submitted for PKD testing MUST be taken by a veterinary surgeon and labelled with the cat's microchip number. Your vet must complete a vet checked submission form, which you will need to include when you send us your swabs.

**Which breeds are affected?**

Moderate risk of PKD

<table>
<thead>
<tr>
<th>Persian</th>
<th>Chinchilla</th>
<th>Exotic Shorthair</th>
<th>British Shorthair</th>
<th>Himalayan</th>
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</thead>
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Low risk of PKD

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<thead>
<tr>
<th>Asian</th>
<th>Birman</th>
<th>Burmilla</th>
<th>Bombay</th>
<th>Cornish Rex</th>
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</thead>
<tbody>
<tr>
<td>Devon Rex</td>
<td>Ragdoll</td>
<td>Scottish Fold</td>
<td>Selkirk Rex</td>
<td>Siberian</td>
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<td>Snowshoe</td>
<td>Tiffanie</td>
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