

Urine Culture Test

- A urine culture test is done to identify the specific bacteria that are causing a urinary tract infection.
- Ideally, a sample of urine is collected by *cystocentesis* in which a needle is inserted directly into the animal's bladder.
- The urine sample is placed on a special medium and incubated to allow the bacteria to grow.
- After the bacteria are identified, another test (a sensitivity test) is performed to determine the most effective antibiotic to use against the bacteria involved.

Urinary tract infections are common in dogs and, to a lesser degree, in cats. Signs of a urinary tract infection include increased drinking, increased or more frequent urination, urinary accidents, bloody urine, or urinating small amounts at a time.

In most cases, a veterinary hospital may perform a urinalysis to help detect an infection. The test results may indicate the likelihood of an infection, but they do not identify the exact bacteria that may be causing the infection.

Pets may be treated empirically, meaning that the veterinarian chooses an antibiotic based on his or her experience regarding which bacteria are most likely to be involved. If the infection doesn't resolve, a urine culture test is needed to identify the specific bacteria and determine the most appropriate antibiotic.

What Is a Urine Culture Test?

A urine culture test is a method of identifying the specific bacteria that may be causing a urinary tract infection. It involves placing a urine sample on a special medium, incubating the sample so the bacteria can grow, and then identifying the bacteria. A second test (a sensitivity test) is usually conducted to determine the most effective antibiotics to use against the bacteria involved.

How Is a Urine Culture Test Done?

Ideally, a urine sample should be collected by *cystocentesis* in which a needle is inserted directly into the animal's bladder. This is a fairly fast procedure

that can be done with very little pain to the pet, but a relatively full bladder is required.

The placement of a catheter (a narrow tube) into the bladder is another method that may be used to collect a urine sample. The drawbacks of this procedure are that it may introduce other bacteria into the bladder and may be uncomfortable for the pet.

Samples that are collected off the floor or in a cup are contaminated with bacteria from the environment or from the lower urinary tract and, therefore, are not the best samples for a culture test.

Once a sample is acquired, a small amount of urine is spread on a special medium, and the container is placed in an incubator. During the course of a few days, any bacteria that are present should grow and can be identified. A sensitivity test is then conducted to determine the most effective antibiotics for the organisms involved.

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What Are the Benefits of a Urine Culture Test?

A urine culture test is the most accurate way to confirm a urinary tract infection; combining a urine culture test with a sensitivity test is the best method to select an antibiotic to help resolve the infection. After antibiotic therapy, urine culture tests are also recommended to ensure that the infection has been eliminated.

Your veterinarian may recommend a urine culture test:

- When your pet initially shows signs of a urinary tract infection
- After treatment with antibiotics
- When empirical therapy does not eliminate clinical signs in your pet
- If your pet appears to have frequent recurrences of clinical signs

Tests and Procedures

While empirical treatment may be successful, the presence of an unusual bacterium or multiple bacteria may result in failure to eliminate the infection, and

your pet will continue to show signs of discomfort. A urine culture test is the best way to ensure that your pet will be back to normal as soon as possible.