

Fecal Analysis

- Fecal analysis helps your veterinarian determine if your pet has intestinal parasites.
- Only a small sample of your pet's stool is required to perform a fecal analysis.
- Fecal analysis may be recommended if your pet develops diarrhea, weight loss, or vomiting; however, even pets that don't seem ill can benefit from periodic fecal evaluations.

What Is a Fecal Analysis?

A fecal analysis is a test that examines your pet's stool to detect intestinal parasites, including worms (hookworms, roundworms, whipworms) and other organisms (coccidia, *Giardia*). It can also detect other abnormalities, such as increased numbers of bacteria in the stool. If your pet develops diarrhea, vomiting, or weight loss (clinical signs frequently associated with parasites), your veterinarian may want to perform a fecal analysis to help determine if parasites are part of the problem. However, some pets have intestinal parasites without any obvious clinical signs, so your veterinarian may recommend performing a fecal analysis during your pet's regular wellness examination visits.

How Is a Fecal Analysis Performed?

Your veterinarian may request that you bring in a fresh sample of your pet's stool. The sample should be placed in a clean, labeled container or a leak-proof plastic bag. Your veterinarian can also obtain a fresh stool sample during a physical examination. To do this, your veterinarian may choose to use a fecal loop, which is a small plastic wand with a loop on the end. After applying lubricant, your veterinarian can gently insert the loop into your pet's rectum and collect a sample of fecal material.

A fecal analysis begins with a visual examination of the stool sample to look for worms, blood, mucus, or foreign material such as grass, bone fragments, or other items the pet may have eaten. Your veterinarian will also examine the stool for abnormal color, consistency, or odor.

Some worms can be seen in the stool. For example, roundworms are long slender worms that look similar to spaghetti. Another worm that may be seen in the stool is a tapeworm. Adult tapeworms grow into a long, segmented parasites in the intestines. As they age, segments containing eggs break off and pass out in the stool. These segments look like pieces of rice and can sometimes be seen near the pet's rear end or in the stool. Many other types of parasites

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are only visible by looking for them under a microscope. Parasite eggs, which are commonly shed in the stool of infected animals, are also visible under a microscope.

There are several tests that your veterinarian may perform as part of a fecal analysis:

- **Direct fecal smear:** In this test, a small amount of stool is placed on a microscope slide, mixed with a very small amount of water or saline, and examined under a microscope. Bacteria and some single-celled parasites can sometimes be identified using this method.
- **Fecal flotation:** In this test, a sample of stool is placed in a plastic container and mixed with a small amount of a special solution. Parasite eggs then float to the top of this solution. A clean microscope slide is placed on the rim of the container to collect the eggs, which your veterinarian can see under the microscope.
- **Fecal centrifugation:** This test is similar to fecal flotation, but the fecal material and special solution are mixed together in a test tube, which is then placed into a *centrifuge*. A centrifuge is a machine that spins the tube in a circle very

rapidly. The spinning creates a force inside the tube that causes heavy material (such as fecal debris) to sink quickly to the bottom, and lighter material (such as parasite eggs) to float to the top. Your veterinarian then collects material from the top of the test tube and examines it under the microscope. Studies have shown that fecal centrifugation may permit the detection of more parasites than some other forms of fecal analysis.

- **Special testing:** If your veterinarian suspects that your pet is infected with *Giardia* or a specific type of bacteria, specific testing to detect these problems may be recommended.

What Is a Fecal Analysis Used For?

Fecal analysis is performed mainly to identify parasites. Sometimes, stool may be checked for dangerous bacteria, like salmonella, or for viral infections like parvovirus and coronavirus. These tests are

usually only performed when the pet is suspected of having these diseases and are not routine.

Benefits of Fecal Analysis

Fecal analysis is most commonly used to help identify the eggs of parasites such as hookworms, whipworms, and roundworms. Because there is no single medication that can treat every possible parasite, accurate diagnosis is important so that the correct treatment can be given.

Some intestinal parasites, such as roundworms and hookworms, are *zoonotic*. This means that they can infect people. Periodically testing your pets for parasites is a good way to help protect your other family members.

Although some pets infected with intestinal parasites develop diarrhea or other clinical signs, many pets don't show any signs at all. The only way to identify these pets and treat them for parasites is to test them periodically for evidence of infection. Fecal analysis is a good way to identify infected pets.