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Dr. Andress is the co-owner of Gate City Animal Hospital in Greensboro, which was established in 1997. He received his B.S. in Microbiology from Clemson University, then went on to obtain his Doctor of Veterinary Medicine from the University of Georgia. His work has been published in several veterinary medicine journals and he has spoken at local and national veterinary conferences. His special interests are in surgery and internal medicine.

Investigating Wet Floors

Coming home from a long day and looking forward to spending time with our family and pets is one of the good things in life. Opening the door and stepping on a wet sloppy carpet full of urine is not one of those good things. Your first thought is that someone forgot to let the dog out. After a few minutes of the blame game, it is determined that yes the dog did recently go outside. So now we know that something is really wrong and it's time to see our veterinarian.

Inappropriate urination is a general term that veterinarians use to mean that dogs aren't urinating where they should. There are many causes for this behavior. Infections, bladder stones, kidney disease and behavioral disorders are just a few. A urinalysis is the most helpful first test when trying to determine the cause. The urine concentration, pH, protein level, presence of white blood cells, and bacteria can be determined by this test. The results of the urinalysis will help point us to the diagnosis or at least the next best test to perform.

In dogs, a bacterial bladder infection is the most common cause of inappropriate urination. This diagnosis can sometimes be based on the symptoms and a urinalysis. Most dogs respond well to antibiotics. A re-check urinalysis is always needed after the antibiotics are finished. This will help determine if the antibiotics solved the problem. If the urinalysis remains abnormal, a deeper investigation is required. There is usually an underlying problem with recurring or difficult to treat infections.

Dogs can develop mineral and organic collections, called stones, in their bladder due to long standing infections, metabolic disorders and some breed related causes. X-rays to look for bladder stones are always a good idea. These stones can resemble sand or be as large as golf balls. Recurring infections are common when stones are present. Depending on the type and cause, stones are surgically removed, flushed out, dissolved with medications or treated with lithotripsy which uses shock waves to break up the stones. All of these procedures have their own limitations and complications. Surgical removal remains the most popular treatment.

A culture and sensitivity is also a very helpful test. This procedure will test for the type of bacteria that is present and help determine what is the most appropriate antibiotic to use to get rid of the

infection. This test takes a few days to get complete results. Just as in people, we see bacterial resistance in pets too. This means that one type of antibiotic will not be able to eliminate infection, while a different class of antibiotics may work very well.

Another commonly used test is an abdominal ultrasound. While x-rays will reveal most bladder stones, the inside lining of the bladder cannot be well observed. Bladder polyps and tumors may also cause dogs to urinate in the house. These pets will have frequent, sometimes painful urination that will also look red from blood. If a bladder polyp or tumor is suspected, a biopsy is needed. This can be obtained with surgery or a cystoscope, which is a tiny tube connected to a camera that is inserted up into the bladder. Once the biopsy results are known, decisions about further therapy such as surgery or chemotherapy can be determined.

As in most medicine cases, blood work is always important in getting the correct diagnosis. There are many diseases that will cause dogs to drink too much water. This will usually lead to inappropriate urination. Some common disorders are diabetes, liver disease, kidney disease and endocrine problems such as Cushing's disease. By pairing blood work with a urinalysis, these problems can be detected or at least suspected, leading to additional tests.

Inappropriate urination is one of the more common cases that are presented to veterinarians. A urinalysis is the one most helpful test in determining the cause of the problem or at least what is the next logical step in figuring it out. Too many times, people may feel that their pet is just old or has a behavioral problem when actually there is a medical condition that can be easily cured. We are fortunate to have many tools to help us get your pet back to being healthy as soon as possible.



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See ad for Gate City Animal Hospital on page 41.