

Blood in urine in dogs and cats

Blood in the urine can occur due to bleeding in the urinary system. When this happens the urine typically looks red and, occasionally, blood clots are seen. Sometimes bleeding can be on a microscopic level and the urine may appear normal. In these cases, blood may only be detected by laboratory analysis.

Are there other clinical signs that can be associated with blood in urine?

Other clinical signs that may be present would include straining to urinate and squatting frequently to pass small amounts of urine. Straining to defecate can sometimes occur in male dogs with an enlarged prostate.

What can cause blood in the urine?

This can vary with the location of the bleeding. Typically, the causes of urinary tract bleeding are separated into either upper urinary tract or lower urinary tract groups. The upper urinary tract includes the kidneys and ureters (the tubes that connect the kidney to the bladder). The lower urinary tract includes the bladder, urethra, prostate (in the male) and vagina (in the female).

Causes – Lower urinary tract bleeding

1. In cases where the lower urinary tract is involved other clinical signs typical of cystitis are normally seen.
2. Bladder – inflammation of the bladder wall (cystitis) and subsequent bleeding can occur due to uroliths (bladder stones), polyps (benign growths), infections and occasionally tumours. In the cat, there is a relatively common form of cystitis that occurs without infection and is called feline lower urinary tract disease (FLUTD). FLUTD has been linked to stress and anxiety.
3. Prostate – the most common causes of bleeding from the prostate in an unneutered dog are prostatitis (infection) and benign hyperplasia. Benign hyperplasia is an enlargement of the prostate due to testosterone stimulation. In a neutered dog cancer of the prostate must be considered.
4. Vagina/Urethra – infections, sterile inflammations and polyps (benign lumps in the vagina) can cause blood in the urine.

Causes – Upper urinary tract bleeding

1. Usually in the case of upper urinary tract bleeding there are no signs of discomfort when urinating.
2. Kidney – infections, nephroliths (stones) and occasionally tumours (benign and malignant) can cause bleeding from the kidney. We occasionally see dogs which have bleeding from a kidney, but no cause of the bleed can be identified. This is called idiopathic renal haemorrhage.

What tests may be required if my dog or cat has blood in the urine?

During the consultation, a veterinary surgeon will try and localise the most likely origin of the bleed. The first tests normally performed would be an ultrasound scan and a urinalysis. Urinalysis is performed to look for evidence of a urinary infection and the ultrasound is performed to look for structural changes in the urinary tract. In some cases radiographs may be helpful also.

What is cystocentesis and why does my pet need the procedure?

Cystocentesis is a technique used to obtain a sterile urine sample from the bladder. Collecting a sample 'free catch' when the patient urinates can result in bacterial contamination e.g. from the animal's coat. This can lead to a misleading culture result. Cystocentesis is a benign procedure that involves inserting a needle (usually guided by ultrasound) through the abdominal wall into the bladder. Cystocentesis is a very well tolerated technique and in most patients can be performed with sedation.