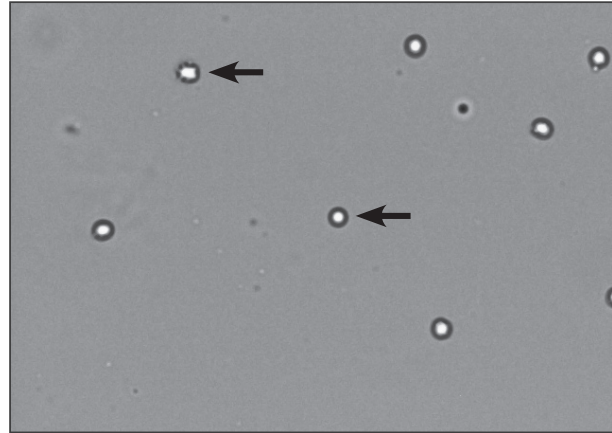


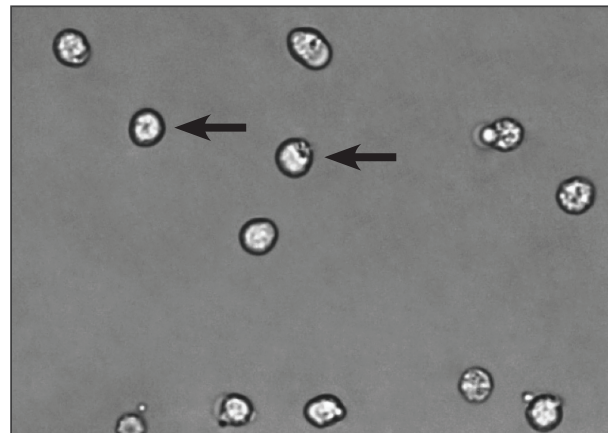
URINE SEDIMENT ATLAS

All images are representative of a 40x objective field of view. Images are taken from the VETSCAN SA.

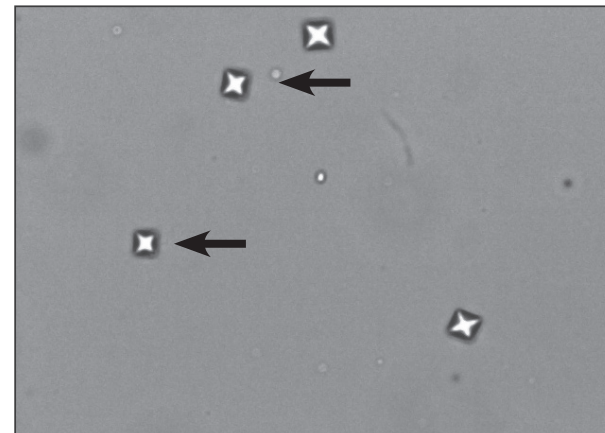
Red Blood Cells



White Blood Cells

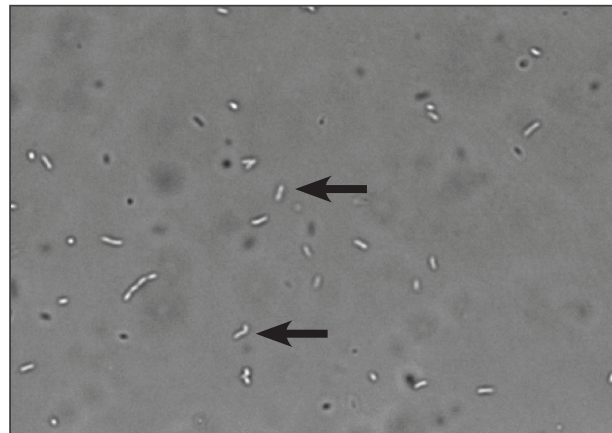


Calcium Oxalate Crystals



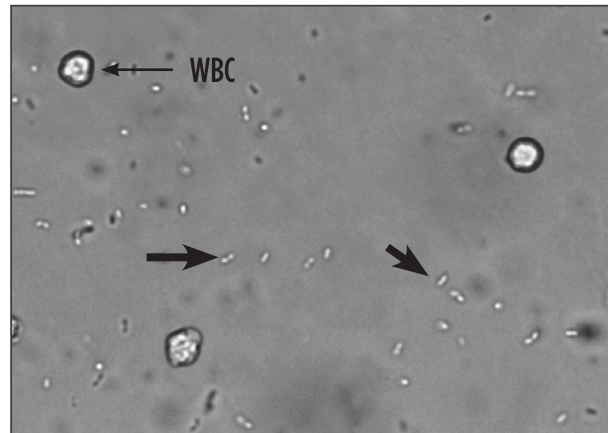
Can be seen in normal patients. **The presence of crystals does not guarantee the formation or presence of uroliths.**

Bacteria Rods



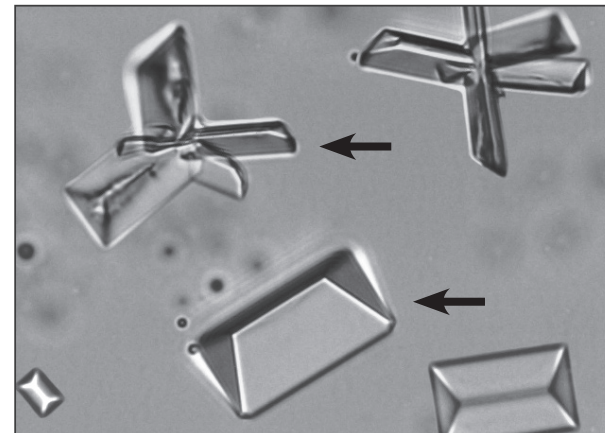
Absence of bacteria does not rule out the presence of infection. 10,000 rods/mL urine must be present to be visible on microscopy.

Bacteria Cocci



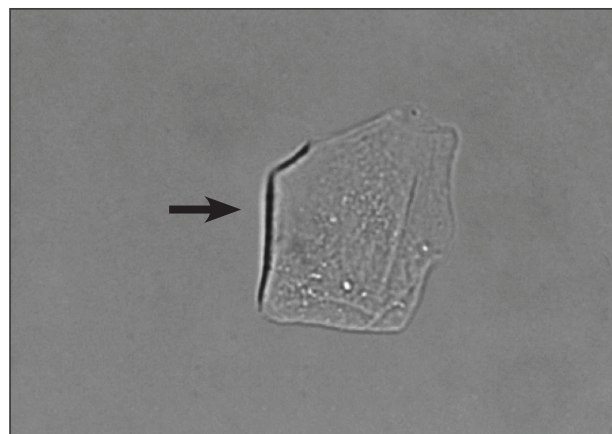
Absence of bacteria does not rule out the presence of infection. 100,000 cocci/mL urine must be present to be visible on microscopy.

Struvite Crystals



Most common in small animal. Form in alkaline urine. **The presence of crystals does not guarantee the formation or presence of uroliths.**

Squamous Epithelial Cells



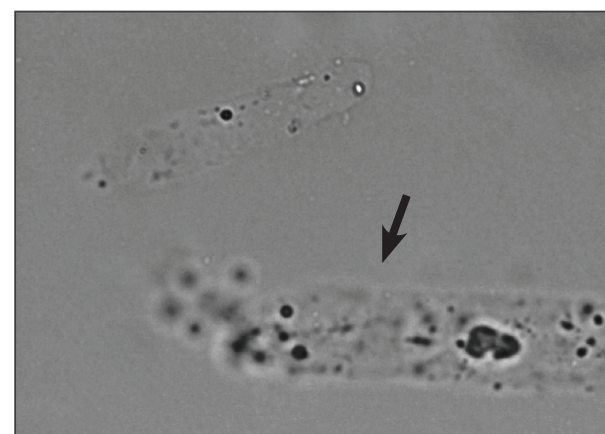
Occasional cells are seen in voided or catheterized normal samples (vaginal or urethral contamination). Increased numbers seen with traumatic collection, inflammation, neoplasia.

Non-Squamous Epithelial Cells



Transitional epithelial cell- round (at thick black arrow). Increased numbers can result from inflammation with or without infection.

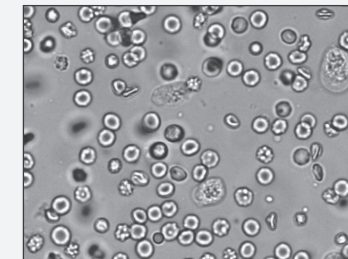
Hyaline Casts



Occasional casts can be found in healthy animals. Increased numbers seen with glomerular proteinuria or strenuous exercise.

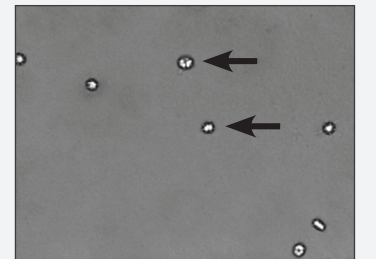
Artifacts

TNTC (Too Numerous to Count)



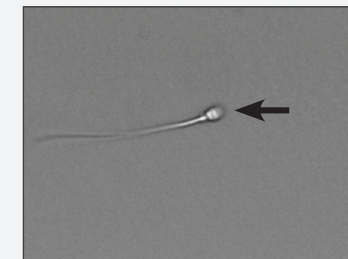
A dilution will be necessary for quantitative measurement by the Vetscan SA. See manual for dilution instructions.

Crenated Red Blood Cells

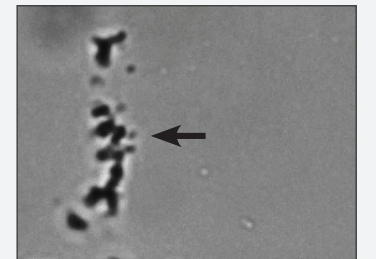


Occur in highly concentrated urine. Can be confused with Ca oxalate crystals.

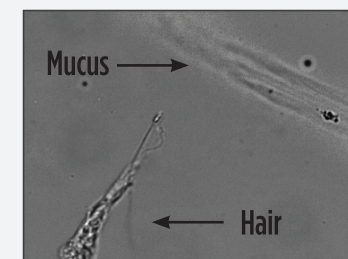
Spermatozoa



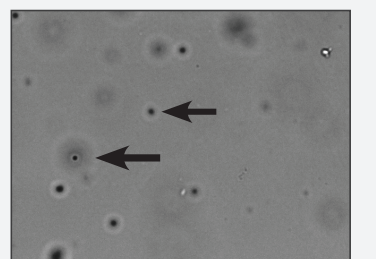
Amorphous Crystals



Hair & Mucus

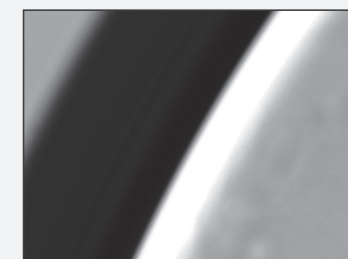


Lipids (Fat Droplets)



Normally found in cat and dog urine.

Short Sample



Short Sample

