**Abnormal Conditions that can be tested for by Urinalysis:**

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| **Proteinuria** | Proteins in the urine (usually the plasma protein albumin so this is sometimes called albuminuria). The presence of protein in the urine is indicative of injury to the glomerular capillary beds or increased blood pressure – this means that there is damage to the kidney filters). These proteins can sometimes cause the urine to be foamy (although a lot of bilirubin in the urine can cause this also). This process can also be caused by consuming too much protein in one’s diet (over time). |
| **Glucosuria** | Glucose in the urine. The presence of glucose in the urine is indicative of diabetes mellitus (but NOT an indication of diabetes insipidus). This can also be present in a kidney that has trauma that damages its filters. |
| **Hematuria** | Red blood cells in the urine. If you can see the blood in the urine this is called gross hematuria, if you can’t it is called microhematuria. Hematuria can be caused by a variety of disease states including kidney trauma, kidney stones, kidney infection, renal cancers, etc. It is quite common for blood to be present in the urine post exercise in marathon runners (this is most often caused by rubbing of the bladder or urethra walls and not damage to the kidney itself). Women who are menstruating will also have blood present in their urine. Eating a lot of beet roots can cause a false positive for hematuria because of the presence of the red pigment betanin. |
| **Pyruia** | White blood cells in the urine. Pyruia is indicative of kidney, bladder and/or urethral infection. |
| **Ketosis** | An abnormally high amount of ketone bodies in the urine. Ketosis occurs in uncontrolled diabetes mellitus, starvation (or repeated fasting), and/or a chronic low carbohydrate (ketogenic) diet. Ketosis causes a “sweet” or “acetone” smell in the urine. |
| **Urobilinogenuria** | An abnormally high amount of urobilinogen in the urine.  Urobiliongen is a normal breakdown product of hemoglobin. Excess amounts of  urobilinogen can occur in the urine due to hemolytic anemia (which can lead to jaundice), liver cirrhosis, or other disease states. |
| **Casts** | Hardened masses that can occur in the urine. Casts usually form in the distal convoluted tubules and collecting ducts of the nephrons. This process can be exacerbated or accelerated through the presence of excess protein in the urine (proteinuria). There are many many types of casts (waxy, fatty, hyaline, bacterial, epithelial etc.) and the presence of particular casts can be indicative of various disease states. |