

Class BIO2312 Lecture/Lab Summer - 2020

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Urinalysis Report

Introduction

The Human body is made up of several different parts and systems that each play a significant role in maintaining a healthy and normal lifestyle. One of these systems is the urinary system. The urinary system is sometimes called the renal system . From it's name alone you can assume that the urinary system something to do with urine, which is correct. Urine is stored, eliminated and produced by the urinary system. Wastes extra water from blood is filtered by the kidneys in order to make urine. The kidney is considered part of the urinary system along with the ureters, bladder and the urethra. Aside from producing urine, some of the other functions of the urinary system include regulating homeostasis and blood pressure. The level health of an individual can partially be determined by the urine that is produced by the urinary system through an urinalysis, which is a test of urine. This test can be used to indicate several disorders such as kidney disease and diabetes.

Materials and methods

As mentioned earlier an urinalysis is a test of an individuals urine. This is done by receiving a sample of urine from an individual then checking several things such as

Ph level

Abnormal substances

Odor

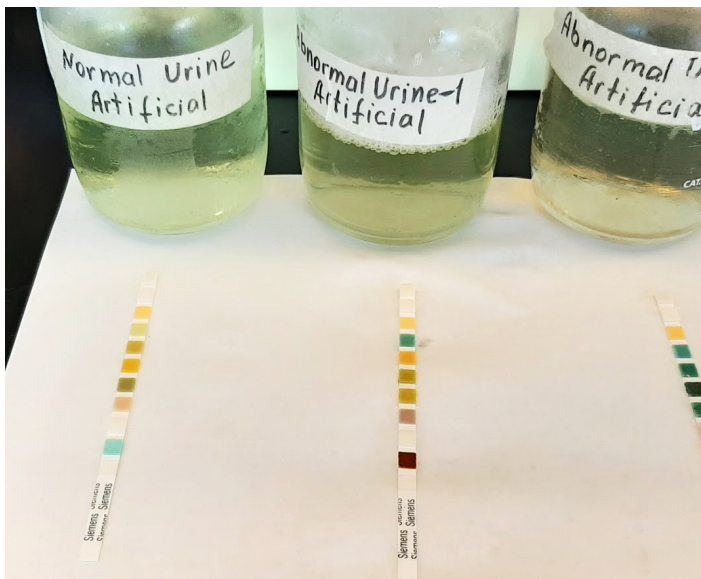
Color

Bacteria/ germs

This lab is performed with the use of 3 samples of urine and multistix strips. A multistix strip is used by sticking into a sample of urine. The change of color on the multistix can determine the ph level of urine.

Results

Urinalysis Results



TESTS AND READING TIME	
LEU	LEUKOCYTES NEGATIVE TRACE SMALL + MODERATE ++ LARGE +++ 2 minutes
NIT	NITRITE NEGATIVE POSITIVE (any degree of uniform pink color) 60 seconds
URO	UROBILINOGEN 0.2 NORMAL 1 mg/dL URINE (1 mg = approx. 1 EU) 2 4 8 60 seconds
PRO	PROTEIN NEGATIVE TRACE mg/dL 30 100 300 2000 or more 60 seconds
pH	pH 5.0 6.0 6.5 7.0 7.5 8.0 8.5 60 seconds
BLO	BLOOD NEGATIVE NON-HEMOLYZED TRACE MODERATE HEMOLYZED TRACE SMALL + MODERATE ++ LARGE +++ 60 seconds
SG	SPECIFIC GRAVITY 1.000 1.005 1.010 1.015 1.020 1.025 1.030 45 seconds
KET	KETONE NEGATIVE mg/dL TRACE 5 SMALL 15 MODERATE 40 LARGE 80 160 40 seconds
BIL	BILIRUBIN NEGATIVE SMALL + MODERATE ++ LARGE +++ 30 seconds
GLU	GLUCOSE NEGATIVE g/dL (%) 1/10 (1%) 1/4 250 1/2 500 1 1000 2 or more 2000 or more 30 seconds

Results

The urine samples were tested for a few different things. All three samples tested negative for Leukocytes. All 3 samples also had a negative nitrite test as well. The urobilinogen for all 3 samples were normal at 0.2. The first sample of urine had a normal protein level, however the last two samples were abnormal which would be a red flag because a large amount of protein may indicate a kidney disease. The pH level for the first two samples were a 6.0, however for the last sample the pH level was a 8.5 which is indicative of UTI. The first sample of urine had no trace of blood in it which is good, the second sample had a small trace, while the third sample had a large trace, which is alarming because it is also indicative of some type of disease. The specific gravity for the first two samples is 1.030, which the third sample is at 1.000, typically the range should be between 1.005 to 1.030. This indicates that the third sample may be drinking too much fluid. The bilirubin test was negative for all three samples. Finally the last 3 samples were tested for glucose, which the second and third test had a significant amount.

Discussion

As discussed earlier the urinalysis can be very significant in determining an individual's level of health. From this urinalysis it can be concluded that the individual from urine sample 1 has no significant concerns or health issues, sample number two has some health issues which can be corrected such as having a significant amount of glucose and some blood in their urine sample. However the individual from sample number 3 should definitely pay attention to their health because not only do they have a high pH level from their urine, there also is significant blood as well as glucose present, which are all indicators of health problems.

References

Martini F., Prentice - Hall Pub. (2011). The Digestive System. Fundamentals of Anatomy & Physiology =