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MATRIC NO: 18/MHS02/043

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WRITE A SHORT NOTE ON URINALYSIS

A urinalysis is a simple test that looks at a small sample of your urine. It can help find problems that need treatment, including infections or kidney problems. It can also help find serious diseases in the early stages, like **kidney disease**, **diabetes**, or liver disease. A urinalysis is also called a “urine test.”

Why urinalysis is done

Urinalysis is often used:

- prior to surgery
- as a preemptive screening during a pregnancy checkup
- as part of a routine medical or physical exam

Your doctor may also order this test if they suspect that you have certain conditions, such as:

- diabetes
- kidney disease
- liver disease
- urinary tract infection

If you already have a diagnosis for any of these conditions, your doctor may use urinalysis to check on the progress of treatments or the condition itself.

Your doctor may also want to do a urinalysis if you experience certain symptoms, including:

- abdominal pain
- back pain
- blood in your urine
- painful urination

Preparing for urinalysis

Before your test, make sure to drink plenty of water so you can give an adequate urine sample. However, drinking excessive amounts of water may cause inaccurate results.

One or two extra glasses of fluid, which can include juice or milk if your diet allows, is all you need the day of the test. You don't have to fast or change your diet for the test.

Also, tell your doctor about any medications or supplements you're taking. Some of these that can affect the results of your urinalysis include:

- vitamin C supplements
- metronidazole
- riboflavin

- anthraquinone laxatives
- methocarbamol
- nitrofurantoin

Some other drugs can affect your results as well. Tell your doctor about any substances you use before doing a urinalysis.

A urine test can include three parts:

- **Visual exam.** The urine will be looked at for color and clearness. Blood may make urine look red or the color of tea or cola. An infection may make urine look cloudy. Foamy urine can be a sign of kidney problems.
- **Microscopic exam.** A small amount of urine will be looked at under a microscope to check for things that do not belong in normal urine that cannot be seen with the naked eye, including red blood cells, white blood cells (or pus cells), bacteria (germs), or crystals (which are formed from chemicals in the urine and may eventually get bigger and become kidney stones).
- **Dipstick test.** A dipstick is a thin, plastic stick with strips of chemicals on it. It is dipped into the urine. The strips change color if a substance is present at a level that is above normal. . Some of the things a dipstick examination can check for include:
 - **Acidity (pH)** is a measure of the amount of acid in the urine. A pH that is above normal may be a sign of kidney stones, urinary infections, kidney problems, or other disorders.
 - **Protein** is an important building block in the body. Everyone has protein in their blood. But it should only be in your blood, not your urine. Your kidneys play a role in this process. Healthy kidneys remove waste products and extra water from your blood, but leave behind the things your body needs, like protein. When kidneys are injured, protein leaks into your urine. Having protein in your urine suggests that your kidney's filtering units are damaged by kidney disease.
 - **Glucose (sugar)** is usually a sign of diabetes.
 - **White blood cells (pus cells)** are signs of infection.
 - **Bilirubin** is a waste product from the breakdown of old red blood cells. It is normally removed from the blood by the liver. Its presence in the urine may be a sign of liver disease.
 - **Blood** can It can be a sign of an infection, a kidney problem, certain medicines, or even heavy exercise. Finding blood in the urine requires further testing. It does not mean you have a serious medical problem.

A urinalysis can help to detect many diseases before you feel symptoms. Finding and treating a problem early can help keep serious diseases from getting worse.