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# Urinalysis

**Also called:** UA, Urine Analysis, Urine Test

A urinalysis is a test of your urine [<https://medlineplus.gov/urineandurination.html>] . It is often done to check for a urinary tract infection [<https://medlineplus.gov/urinarytractinfections.html>] , kidney problems [<https://medlineplus.gov/kidneydiseases.html>] , or diabetes [<https://medlineplus.gov/diabetes.html>] . You may also have one during a checkup, if you are admitted to the hospital, before you have surgery, or if you are pregnant. It can also monitor some medical conditions and treatments.



A urinalysis involves checking the urine for:

- Its color
- Its appearance (whether it is clear or cloudy)
- Any odor
- The pH level (acidity)
- Whether there are substances that are not normally in urine, such as blood, too much protein, glucose, ketones, and bilirubin
- Whether there are cells, crystals, and casts (tube-shaped proteins)
- Whether it contains bacteria or other germs





## Start Here

- Urinalysis [<https://www.mayoclinic.org/tests-procedures/urinalysis/about/pac-20384907?p=1>]  
(Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/tests-procedures/urinalysis/about/pac-20384907?p=1>]

## Diagnosis and Tests




- Epithelial Cells in Urine [<https://medlineplus.gov/lab-tests/epithelial-cells-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/pruebas-de-celulas-epiteliales-en-la-orina/>]
- Mucus in Urine [<https://medlineplus.gov/lab-tests/mucus-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-moco-en-la-orina/>]

## Specifics


- Bacteria Culture Test [<https://medlineplus.gov/lab-tests/bacteria-culture-test/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-cultivo-de-bacterias/>]
- Bilirubin in Urine [<https://medlineplus.gov/lab-tests/bilirubin-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/pruebas-de-bilirrubina-en-la-orina/>]
- Blood in Urine [<https://medlineplus.gov/lab-tests/blood-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-sangre-en-la-orina/>]
- Crystals in Urine [<https://medlineplus.gov/lab-tests/crystals-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-cristales-en-la-orina/>]

**Foamy Urine: What Does It Mean?** [<https://www.mayoclinic.org/healthy-lifestyle/adult-health/expert-answers/foamy-urine/faq-20057871?p=1>] (Mayo Foundation for Medical Education and Research)


Also in Spanish [<https://www.mayoclinic.org/es/foamy-urine/expert-answers/faq-20057871?p=1>]

- **Nitrites in Urine** [<https://medlineplus.gov/lab-tests/nitrites-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-nitritos-en-la-orina/>]
- **Protein in Urine** [<https://medlineplus.gov/lab-tests/protein-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-proteinas-en-la-orina/>]
- **Urine Color** [<https://www.mayoclinic.org/diseases-conditions/urine-color/symptoms-causes/syc-20367333?p=1>]  
(Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/urine-color/symptoms-causes/syc-20367333?p=1>]
- **Urine Odor** [<https://www.mayoclinic.org/symptoms/urine-odor/basics/definition/SYM-20050704?p=1>]  
(Mayo Foundation for Medical Education and Research)
- **Urobilinogen in Urine** [<https://medlineplus.gov/lab-tests/urobilinogen-in-urine/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-uribilinogeno-en-orina/>]

## Videos and Tutorials

- **Getting a Urine Test (For Kids)** [<https://kidshealth.org/en/kids/video-urtest.html>]  (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/kids/video-urtest.html>]

## Clinical Trials


- **ClinicalTrials.gov: Urinalysis** [<https://clinicaltrials.gov/search?cond=%22Urinalysis%22&aggFilters=status:not%20rec>]  (National Institutes of Health)

## Journal Articles

**References and abstracts from MEDLINE/PubMed (National Library of Medicine)**

- **Article: Flow cytometry for screening and prioritisation of urine samples: a retrospective...** [<https://www.ncbi.nlm.nih.gov/pubmed/40739551>]
- **Article: Impact of Diagnostic Stewardship on Urine Culture Ordering in Saudi Arabia:...** [<https://www.ncbi.nlm.nih.gov/pubmed/40700033>]
- **Article: Optimised RFO tuned RF-DETR model for precision urine microscopy for renal...** [<https://www.ncbi.nlm.nih.gov/pubmed/40670558>]
- **Urinalysis -- see more articles** [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Urinalysis%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bedat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29+AND+free+full+text%5Bsb%5D+>]

## Find an Expert

- **National Institute of Diabetes and Digestive and Kidney Diseases** [<https://www.niddk.nih.gov>] 

## Children

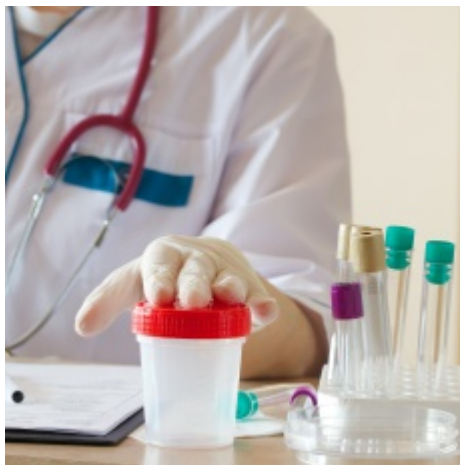
- **Blood in the Urine (Hematuria) (For Parents)** [<https://kidshealth.org/en/parents/hematuria.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/parents/hematuria.html>]
- **Urine Test: Dipstick (For Parents)** [<https://kidshealth.org/en/parents/dipstick.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/parents/dipstick.html>]
- **Urine Tests (For Parents)** [<https://kidshealth.org/en/parents/labtest7.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/parents/labtest7.html>]

# Teenagers

- Blood in the Urine (Hematuria) [<https://kidshealth.org/en/teens/hematuria.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/teens/hematuria.html>]

## Patient Handouts

- Bilirubin - urine [<https://medlineplus.gov/ency/article/003595.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003595.htm>]
- Clean catch urine sample [<https://medlineplus.gov/ency/article/007487.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/007487.htm>]
- Glucose urine test [<https://medlineplus.gov/ency/article/003581.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003581.htm>]
- Ketones urine test [<https://medlineplus.gov/ency/article/003585.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003585.htm>]
- RBC urine test [<https://medlineplus.gov/ency/article/003582.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003582.htm>]
- Urinalysis [<https://medlineplus.gov/ency/article/003579.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003579.htm>]
- Urine odor [<https://medlineplus.gov/ency/article/007298.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/007298.htm>]
- Urine pH test [<https://medlineplus.gov/ency/article/003583.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003583.htm>]
- Urine protein dipstick test [<https://medlineplus.gov/ency/article/003580.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003580.htm>]
- Urine specific gravity test [<https://medlineplus.gov/ency/article/003587.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003587.htm>]



## MEDICAL ENCYCLOPEDIA

Bilirubin - urine [<https://medlineplus.gov/ency/article/003595.htm>]

Clean catch urine sample [<https://medlineplus.gov/ency/article/007487.htm>]

Glucose urine test [<https://medlineplus.gov/ency/article/003581.htm>]

Ketones urine test [<https://medlineplus.gov/ency/article/003585.htm>]

Leucine aminopeptidase - urine [<https://medlineplus.gov/ency/article/003617.htm>]

Leukocyte esterase urine test [<https://medlineplus.gov/ency/article/003584.htm>]

RBC urine test [<https://medlineplus.gov/ency/article/003582.htm>]

Urinalysis [<https://medlineplus.gov/ency/article/003579.htm>]

Urinary casts [<https://medlineplus.gov/ency/article/003586.htm>]

Urine - abnormal color [<https://medlineplus.gov/ency/article/003139.htm>]

Urine - bloody [<https://medlineplus.gov/ency/article/003138.htm>]

Urine odor [<https://medlineplus.gov/ency/article/007298.htm>]

Urine pH test [<https://medlineplus.gov/ency/article/003583.htm>]

Urine protein dipstick test [<https://medlineplus.gov/ency/article/003580.htm>]

Urine specific gravity test [<https://medlineplus.gov/ency/article/003587.htm>]

## National Institutes of Health

The primary NIH organization for research on *Urinalysis* is the National Institute of Diabetes and Digestive and Kidney Diseases [<https://www.niddk.nih.gov>]

## Other Languages

Find health information in languages other than English [<https://medlineplus.gov/languages/urinalysis.html>] on *Urinalysis*

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