



The Royal College of Pathologists

Pathology: the science behind the cure

## Object 35: Urine dipstick



### What is it?

The urine dipstick is a commercially-produced thin strip of plastic or paper on which up to ten small squares of reagent-soaked filter paper are stuck. It is dipped in a urine specimen to give a quick indication of any possible diseases present, with colour changes giving semi-quantitative measurements of substances in the sample. Commonly-used dipsticks include reactions for glucose, protein, ketones, bilirubin and blood in the urine.

### History

Modern doctors use urine dipsticks to test for a small range of abnormalities but until the nineteenth century, urinalysis was the mainstay of diagnostic practice. For thousands of years the examination of the urine was used by doctors (and quacks) to diagnose disease. The Ancient Egyptians and Babylonians were the first to examine the urine over 4000 years ago and Hippocrates described changes in the urine that we recognise today as signs of disease.

### Pathology

Urine dipsticks are useful in the initial detection of conditions such as kidney and liver disease. They are also widely used to monitor blood sugar control in diabetes. They have the advantage of being cheap, non-invasive, portable and simple to use. If unexpected abnormal substances are identified in the urine, further investigations, including blood tests, may be performed to give a more accurate reading on which treatment can be based.

### Find out more

You can learn more about the different tests on the urine dipstick on the [Patient UK website](#).