

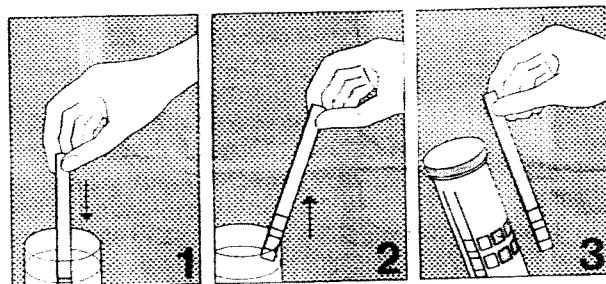
GLUKETUR- TEST®

Ⓞ **Test strip for the simultaneous determination of glucose (sugar) and ketone bodies (acetone and acetoacetic acid) in urine with improved test area for the semi-quantitative determination of glucose.**

Instructions for use:

1. Briefly (no longer than 1 second) dip the test strip into the urine.
2. Withdraw and wipe edge along the rim of the vessel in order to remove excess urine.
3. After 60 seconds, compare reaction colours with the colour scales on the label.

Any colour changes appearing after more than 2 minutes do not have any diagnostic significance. The test strip may alternatively be briefly held in the urine stream and the excess urine shaken off.



semi-quantitative	50	100	300	1000	mg/dl
normal	2.8	5.5	17	55	mmol/l
qualitative					
negative	+	++	+++	++++	

Interpretation:

Glucose: As a result of the improved composition of the glucose test area, it is now possible to obtain a **semi-quantitative evaluation** of the test in addition to a **qualitative assessment** (see table above). The presence of sugar in the urine is indicated by a colour change of the upper test area from yellow to green. The practical detection limit in 90% of cases is approx. 40 mg glucose/dl urine.

In mild cases of diabetes manageable by means of diet or medication no glucose excretion should be detectable. In severe cases and insulin-dependent diabetics with normally functioning kidneys, on the other hand, residual glucosuria is often detectable even when metabolic adjustment is good. The physician must inform the patient what level of residual glucosuria is tolerable.

Ketone bodies: The presence of ketone bodies in urine is indicated by a colour change of the lower test area from beige to violet.

The colour scale on the label corresponds approximately to

the following concentration ranges of acetoacetic acid: + 5–40 mg/dl, ++ 40–100 mg/dl, +++ more than 100 mg/dl urine.

Ketone bodies are not normally detectable in urine. A positive reading, especially in conjunction with a highly positive result for urinary glucose in diabetics, is indicative of metabolic deterioration and calls for close monitoring of the patient's adjustment.

Use: The physician may recommend the use of **GLUKETUR-TEST®** for home monitoring. He will tell the patient at what times tests should be carried out and how the results are to be interpreted and recorded.

Principle: The test paper for glucose is impregnated with the enzymes glucose oxidase and peroxidase as well as a colour indicator, and reacts specifically with glucose. Other sugars present in the urine produce no reaction. The glucose determination is not affected by the presence of ketone bodies in the urine.

The determination of ketone bodies is based on the well-known principle of Legal's test. Sodium nitroprusside and glycine react with acetoacetic acid and acetone in alkaline medium to form a violet dye complex. The lower limit of detection for acetoacetic acid is 5–10 mg/dl urine and for acetone 40–70 mg/dl urine.

One test contains per cm²: Glucose: TMB 103.5 µg, GOD 6.0 U, POD 35.0 U, Ketones: Sodium nitroprusside 157.2 µg, glycine 4.24 mg.

Sources of error: False-positive readings for glucose can result from residues of strongly oxidizing disinfectants in the specimen collection vessel.

The effect of ascorbic acid has been largely eliminated so that at glucose concentrations of 100 mg/dl and above even high ascorbic acid concentrations are not likely to give false-negative results.

Captopril, Mesna (sodium 2-mercapto-ethane sulphonate) and other substances containing sulphhydryl groups may produce false-positive results. Phenylketones and phthalein compounds produce red colours on the test area. These are, however, quite different from the violet colours produced by ketone bodies.

Please note: Use only well-rinsed, clean vessels to collect urine. No residues of oxidizing cleansing agents must be allowed to remain in the collection vessel. Urine that has not been preserved may stand for no more than 4 hours before testing.

The urine preservatives toluene, thymol, and formaldehyde do not interfere with the test when present in the usual concentrations.

Close the test-strip container with the desiccant stopper immediately after taking out a test strip since the strips are sensitive to humidity on prolonged exposure.

Store the pack at temperatures not exceeding + 30°C.

GLUKETUR-TEST® strips in the original container are stable up to the expiry date given on the pack.

Presentation: Pack of 50 test strips, Cat. No. 126 136

FOR IN VITRO DIAGNOSTIC USE

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