

Stool pH

I. Introduction and Clinical Significance

Normal stool pH is between 7 and 8. An increased availability and utilization of carbohydrates by intestinal bacteria may lower the pH below 5.5 in the case of carbohydrate intolerance.

II. Principle

A double-indicator system of methyl red and bromthymol blue is used to produce distinct color changes from orange (pH 5.0) to green (pH 7.0) to blue (pH 9.0). The stool specimen should be freshly collected and tested before cooling. *

III. Materials

- A. Slide
- B. Test tube
- C. Plastic pipette
- D. pH Test Papers

IV. Specimen stability

Frozen: 1 week, refrigerated: 3 days, room temperature: 30 min.

V. Procedure

1. Make an aqueous solution of 1 part stool to 1 part saline.
2. Place the pH test paper on a microscopic slide.
3. Using a plastic pipette, add one drop of stool solution to the pH test paper.
4. Read the color of the test paper within 1 min.
5. Correlate the color to the pH by referring to the color code on the package of pH test papers.

VI. Reporting

Report result as indicated on strip.

***Note:** Erroneous results can happen when the specimen is allowed to cool below body temperature or bacterial proliferation occurs.

IV. References

Brunzel, Nancy: Fundamentals of Urine and Body Fluid Analysis. W.B. Saunders Co. 1994.

Strasinger, Susan King: Urinalysis and Body Fluids, FA Davis Co. 1994

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