Lab Dept:	**Urine/Stool**
Test Name:	**REDUCING SUBSTANCES, STOOL**

General Information

Lab Order Codes:	UREDF
Synonyms:	Stool Reducing Substances; Fecal Reducing Substances
CPT Codes:	84376 – Urinalysis, by dipstick or tablet reagent; non-automated, without microscopy
Test Includes:	Test for fecal reducing substance as an indication of disaccharidase (sucrase, lactase) deficiency. Reducing substances detected include glucose, fructose, lactose, galactose, and pentose.

Logistics

Lab Testing Sections:	Urine/Stool - Sendouts
Referred to:	Mayo Medical Laboratories (MML: UREDF)
Phone Numbers:	MIN Lab: 612-813-5866 STP Lab: 651-220-6555
Test Availability:	Daily, 24 hours
Turnaround Time:	1-3 days; performed Monday - Friday
Special Instructions:	**Specimen site** and **date/time of collection** are required for specimen processing.

Specimen

Specimen Type:	Random stool (loose stool)
Container:	Plastic, leakproof container or Mayo stool container (Supply T288)
Volume:	3 g or 3 mL stool (Minimum: 2 g or 2 mL stool)

Collection:

● Collect loose, random stool in a clean, dry bedpan or on a newspaper over the toilet. Transfer specimen to a plastic, leakproof container. Do not overfill or contaminate the outside of the container.
● Pediatric patients with severe diarrhea may use a U-bag collection system. Place the bag over the anal area in an attempt to retrieve the specimen before it soaks into the diaper. The diaper can also be reversed with the plastic side toward the skin to prevent the specimen from soaking into the diaper. Transfer specimen into a plastic, leakproof container.
● If collecting from an infant, use nonabsorbent diapers. If stool is collected in a disposable diaper, the solid and liquid stool must be combined. The liquid portion of the stool can be aspirated from the diaper using a syringe or alternatively can be expressed from the diaper into a cup. If the diaper has gel absorption, a cotton ball will be necessary to collect the liquid portion of the stool.
● It is critical that urine is not also mixed with the specimen. Urine will interfere with the results.
● Send recovered specimen to laboratory immediately. Diapers will not be accepted in the laboratory.

Offsite collections: Freeze specimen immediately and send frozen.

Transport/Storage:

Specimen must be received in the laboratory within 1 hour of collection, unless frozen. Delay may cause falsely low results. Freeze specimen if testing is delayed. **Do not** send specimen through the pneumatic tube system.

Specimen Processing:

Lab Staff: Separate specimen containers must be submitted to the reference lab when multiple tests are ordered. Freeze specimen(s) and forward promptly.

Sample Rejection:

No diapers accepted. Improperly labeled specimen; specimen contaminated with urine and/or water; leaking container; insufficient volume; specimen containing interfering substances such as castor oil, bismuth, Metamucil®, barium, Vaseline®, or other cream contaminants. Specimens from timed collections. If an unacceptable specimen is received, the physician or patient's nurse will be notified and another specimen will be requested before the specimen is discarded.

Interpretive

Reference Range:

Negative or Trace	
Interpretation:	
Negative/Trace	<0.25 g/dL
Suspicious (grade 1)	0.25 - 0.5 g/dL
Abnormal (grade 2-4)	>0.5 g/dL

Limitations:

A number of other compounds also are capable of reducing cupric ions to cuprous ions and can cause false-positives.

Ambient transport temperatures will result in growth of bacteria. Bacteria consume reducing substances, which can result in false-negative results, so ambient specimens are rejected.

This test has poor sensitivity for oligosaccharides and poor sensitivity from diaper stools because fluid is reabsorbed into the diaper. Testing of only the stool portion of the stool will give falsely-low readings since the liquid portion of the stool contains the water soluble sugars.

Possible interferences include: salicylates, penicillin, chloral hydrate, menthol, phenol, streptomycin, para-aminosalicylic acid, isoniazid, ascorbic acid, cephalosporins, and probenecid.

Methodology:

Clinitest®

References:

Mayo Medical Laboratories November 2016

Updates:

7/9/2014: Added offsite collection info.
11/15/2016: Test moved to Mayo, no longer performed in house.