

## APPENDIX—Special Chemistry

### Xylose Absorption

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#### COLLECTION INSTRUCTIONS

The *d*-Xylose Absorption test is primarily used to evaluate intestinal malabsorption syndromes.

#### Patient Preparation

Patient must fast for a minimum of 8 hours prior to the test and must not eat during the test.

Patient may have water as desired during testing.

Patient should refrain from eating foods containing pentose, e.g. fruits, jams, jellies, and pastries, for 24 hours before the test.

Smoking is prohibited during testing.

A number of drugs can interfere with the test results: Aspirin, Atropine, Colchicine, Digitalis, Indomethacin, MAO inhibitors, Nalidixic Acid, Neomycin, Opium Alkaloids, Phenezine

Patient should rest in a chair or bed during testing.

#### Test Procedure

##### Adults

1. Ask the patient to void and discard urine. Record the time on a 24 hour urine collection container.
2. Just prior to the start of urine collection, collect the first serum (0.5 mL). Allow serum to clot at room temperature and separate serum from cells within 2 hours of collection. Label this sample as FASTING serum.
3. Immediately give the patient the 25 grams of *d*-xylose dissolved in 250 mL of water, followed by an additional 250 mL of water.
4. Ask the patient to collect all urine in the container provided for the 5 hours after administering *d*-xylose.
5. Two hours after the administration of the *d*-xylose, obtain a second serum sample. Allow serum to clot at room temperature and separate serum from cells within 2 hours of collection. Label sample as TWO HOUR serum.
6. Five hours after the administration of the *d*-xylose, ask the patient to void one last time in the collection bottle. The container should now contain all the urine voided in the 5 hours following the administration of the *d*-xylose. Record the urine total volume, mix well and remove a 5.0 mL aliquot for transport in an IATA-approved screw-capped plastic container. Record xylose dose and urine total volume on container.
7. For patients who do not tolerate the 25 grams xylose dose, a 5 gram dose can be used.

##### Children

Please follow the same procedure as above except that the *d*-xylose dose should be 0.5 grams/kg (0.23 grams/lb) of body weight up to 25 grams. Give xylose in water (5.0 mL of water per 0.5 g of xylose, up to 250 mL of water). Encourage the patient to drink additional water following the xylose dose. The patient may have water as desired but no other food or fluids.

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