

25 Gram Oral D-Xylose Test PROTOCOL

About The 25 Gram Oral D-Xylose Test

This test measures the body's ability to absorb sugars. The test is performed by feeding a fasted subject a pre-measured dose (25 grams) of d-xylose. Serum levels are measured two hours later, reflecting the body's ability to absorb simple sugars. Since this particular sugar is not used or altered by the body, serum levels reflect the amount of d-xylose absorbed in the small intestine. Low levels of serum d-xylose (**≤20 mg/dl**) indicate **carbohydrate malabsorption**, whereas **>20 mg/dl is normal**. The mean value of serum d-xylose in a normal, healthy population is 45 mg/dl.

Some gastrointestinal specialists do not routinely use this test. In the presence of a known infection, d-xylose tests are more likely to be positive for malabsorption. Yet this is precisely why we want to perform the test in HIV-positive subjects. We know that people absorb nutrients less well during stress to their immune system, and that it is the combination of malabsorption and infection that can lead to wasting. While HIV-negative people with malabsorption (due to an infection) can quickly restore weight and lean body mass once the infection has resolved, HIV-positive individuals often do not.

Procedure

- Participant is instructed to fast (no food or beverages including coffee) for five hours prior to their clinic visit.
- Provide participant with a d-xylose drink upon arrival. To prepare, add one pre-measured container d-xylose* to one cup of water (2/3 cup cold, 1/3 cup hot to help dissolve d-xylose) and stir. Be sure all d-xylose solution is consumed.
- Blood is drawn **two hours** from the time the drink is consumed.

*The D-Xylose test does not interfere with blood sugar levels and is therefore safe to be administered to participants with impaired glucose tolerance or diabetes. However, for any test requiring a prolonged fast, insulin and oral agents need to be adjusted. Please see **Protocol for Participants with Diabetes** for these adjustments.*

* D-Xylose from Ruger Chemical, product #0609-2