

Glucose Tolerance Testing—Physician Information

The following information is given to aid in obtaining and interpreting glucose tolerance tests.

- A. *Scheduling*: It is requested that all glucose tolerance tests be scheduled with the laboratory. glucose tolerance tests are performed 5 days a week. The patients are requested to arrive by 7:30 a.m.
- B. *Suggested prerequisites*: It is suggested that the patient be placed on a high carbohydrate diet for 3 days prior to the test, at the discretion of the physician. Such diets contain approximately 300 grams of carbohydrates and are obtainable from the dietary department. Chronic use of adrenal steroids, oral contraceptives, thiazide diuretics, oral hypoglycemic agents; or large doses of salicylates or nicotinic acid may alter glucose tolerance and make interpretation of the test difficult. It is preferred that such medications be discontinued 1 month prior to testing or such medications noted so the test be appropriately interpreted.
- C. *Types of glucose tolerance tests*: There are 2 basic reasons for performing a glucose tolerance test. The basic underlying cause should suggest the type of test to be performed. The test is useful in the diagnosis of latent or mild-to-moderate diabetes mellitus; and in establishing the diagnosis of reactive or true hypoglycemia. The following glucose tolerance tests are offered and the specific test should be requested at the time of scheduling.
1. 1-Hour glucose tolerance test (fasting, 1-hour specimens)
 2. 2-Hour glucose tolerance test (fasting, 1- and 2-hour specimens)
 3. 3-Hour glucose tolerance test (fasting, 1-, 2-, and 3-hour specimens)
- Note**: If some variation in the test is requested, consultation with the pathologist for special scheduling is suggested. Intravenous glucose tolerance tests can be obtained by scheduling with the pathologist.
- D. *Carbohydrate Load*: The normal carbohydrate load is given in the form of orange or grape Trutol
Pregnant—100 grams of Trutol
Nonpregnant—75 grams of Trutol
- E. *Reactions*: The patients are requested to remain in the area of the laboratory to avoid the development of reactions outside of the laboratory area. Patients are requested to report all reactions and additional blood glucoses will be drawn if the patient is symptomatic during the course of the test. It should be suggested to the patient that after termination of the test, the patient eat a carbohydrate load, and appropriate food or drink can be obtained through the hospital cafeteria.
- F. *Interpretation*: The glucose tolerance test does vary with age and should be interpreted on an individual basis.
1. A maximum value of <180 mg %, and
 2. Return to <140 mg % within 2 hours is suggested as normal in the interpretation of glucose tolerance tests. Addition of 10 mg % each for the ages of 60 to 70 and 70 to 80 are both the maximum and 2-hour values is suggested. A value <30% of the fasting level during the course of the test suggests the possibility of reactive hypoglycemia.