

## Fecal Fat Test PROTOCOL

### About The Fecal Fat Test

This procedure tests for steatorrhea, or excess fat in bowel movements due to fat malabsorption. A Sudan Red stain applied to a smear on a microscope slide estimates the amount of fat in the stool. If levels are high, less fat has been absorbed through the gut wall, indicating fat malabsorption.

A healthy person who consumes 100 grams of fat per day would have an average stool fat of < 7 grams per 24 hours. Fecal excretion of more than 7 grams of fat in a 24-hour period or more than 7% of the measured fat intake over a three day period is indicative of fat malabsorption, or steatorrhea.

### Preparation for the Fecal Fat Test

Prior to stool collection for the fecal fat test, participants need to consume **as close to 100 grams of fat** as possible per day for three days. For example, if a participant's appointment is on Tuesday, he or she should eat a 100 gram fat diet on Saturday, Sunday, and Monday. Participants should then fast – no food or beverages – for **5 hours** prior to their clinic visit. *For participants with diabetes, insulin and/or oral agents will need to be adjusted during a prolonged fast. Please see **Protocol for Participants with Diabetes** for these adjustments.*

A typical American diet is high in fat. Some study participants may need to cut back on their fat intake so as not to exceed 100 grams. Others may have difficulty achieving a 100 gram fat diet. A dietitian/nutritionist should review high fat choices of foods and beverages with the participant and how to plan for an intake of 100 grams of fat per day for the three days prior to stool collection.

### Procedure

- Prior to the stool collection visit, give participant the 100 Gram Fat Diet Instructions (page 2) as well as Stool Collection Kit which includes Instructions for Stool Collection (page 3), plastic stool hat, plastic stool collection cup with lid, a wooden scoop, a ziplock bag, and a paper bag.
- Instruct participants to bring a stool sample (2-3 Tbs.) with them to their next clinic visit. The stool sample should be collected on the same day as the participant's visit, placed in the stool collection cup with lid secured, then sealed inside the ziplock bag. They can place this inside the paper bag for transport.
- Upon receiving sample, make sure the collection cup cover is secure, attach the participant's identification label onto the cup, and seal the cup inside a clean ziplock bag. Place a completed requisition form along with the ziplock bag inside another plastic bag and send through the clinic's transport system to the laboratory for analysis.

## Fecal Fat Test Protocol, continued

### 100 Gram Fat Diet Instructions

Each of the following groups of food contain approximately 5-8 grams of fat per serving. If you choose 15-20 *servings* from this list, you will take in about 100 grams of fat.

#### Fats (about 5 grams/teaspoon):

Butter, margarine  
Vegetable oils (corn, soybean, canola, peanut, olive, etc)  
Cream (sour, half & half, whipped)

#### (3 teaspoons = 1 tablespoon)

Cream Cheese  
Salad dressings  
Mayonnaise  
Gravies, cream sauces

#### Meats/Poultry/Fish/Eggs – medium fat - (about 5 grams/ounce):

Chicken/turkey breast, with skin  
Fried chicken  
Hamburger, steak, roast beef  
Lamb (roast, chop, leg)  
Salmon, bluefish, tuna (canned in oil)

Chicken/turkey, dark meat  
Pork chops, roasts  
Veal chops, roasts  
Eggs (one = 5 grams fat)  
Any fried fish

#### Meats/Poultry – high fat - (about 8 grams/ounce):

Lunch meat (bologna, salami, pastrami, Italian cold cuts)  
Pork sausage, spareribs

Hot dogs  
Bacon

#### Milk (5-8 grams/cup):

Whole Milk (8 grams fat)  
2% Milk, Soy Milk, (5 grams fat)

#### Cheese (8-grams/ounce):

American, Swiss, Feta, Mozzarella, Cheddar, Provolone, Brie, etc.

#### Miscellaneous (5 grams/serving):

Nuts, seeds (1 TBS)  
Peanut butter (1 TBS)  
Avocado (1/8)

#### Desserts (read food label):

Cookies, cakes, pastries  
Muffins, donuts  
Ice cream, chocolate candy

### Sample Food Choices to meet the 100 gram fat goal for one day:

Food Group	Fat Grams
2 cups whole milk	15
5 oz medium fat meat, poultry, fish	25
5-9 servings fruits and vegetables	Trace
6-11 whole grain or enriched breads, cereals	5-10
Dessert (ice cream, pie, cake, etc.) Read label for serving size that = 20-25 grams fat	20-25
2 tablespoons (6 teaspoons) Fat (butter, margarine, oil, mayonnaise, etc.)	30
<b>Total Fat</b>	<b>95-105</b>

## **Fecal Fat Test Protocol, continued**

### **Instructions for Stool Collection for Fecal Fat Test**

- Collect stool sample on the same day as your scheduled visit.
- Place plastic stool hat onto toilet seat for stool collection.
- Using wooden paddle, scoop 2-3 tablespoons of stool and place in specimen container (plastic cup with top).
- Tightly close (seal) the cup and put in the clear plastic bag (ziplock) which we gave you. Close the bag tightly.
- Use the brown paper bag to transport the sealed plastic bag with your sample.

### **Fasting Before Your Visit**

It is vital for collecting proper data that you follow a fasting schedule.

- Please do not eat, drink, or smoke anything 5 hours prior to your visit.
- Please do not consume alcohol for 48 hours prior to your visit.
- Please do not exercise vigorously for 48 hours prior to your visit.