

## Protocols for Test Preparation

### **Blood/Lab Work:**

**Fasting:** Some blood work needs to be drawn on an empty stomach. If you have been asked to have “fasting lab-work” done, please follow these instructions:

1. The night before your appointment start fasting after midnight.
2. It is fine to drink water after midnight and on the morning of your appointment.
3. Take your medications as usual with water only.
4. It may be a good idea to bring breakfast or a snack to eat once the blood is drawn.
5. It is best to also avoid coffee and tea prior to the lab draw, especially if you are having your blood sugar or cholesterol levels measured.

**AM, non-fasting:** Some blood work needs to be drawn in the morning, though not necessarily fasting. If you have been asked to have “AM, non-fasting lab-work” done, you just need to be sure to have the draw between 7AM and 9AM in the morning.

### **24-Hour Urine Collection Protocol:**

Some conditions require a 24-hour urine specimen to evaluate kidney function accurately. Substances excreted by the kidney are not excreted at the same rate or in the same amounts during different times of the day and night; therefore a single urine or blood sample might not as accurately reflect the processes taking place over a 24-hour period. The following instructions will help you collect the specimen correctly.

1. Empty your bladder first thing in the morning. Do not collect this first void, simply discard it. Begin the test collection after the first void; continue for 24 hours and include the first void the following morning.
2. Note the time you begin the test on the container.
3. It may be helpful to post a sign in your bathroom to remind you to collect all urine for 24 hours.
4. The specimen will need to be refrigerated immediately after each collection. The container must be refrigerated during the 24-hour collection. It may also be placed in an iced container.
5. Near the end of the 24-hours, obtain a specimen as closely as possible to the stated end-time of the test.
6. Once completed, return the container to SPM. If a long travel time is anticipated, keep the container on ice.

If you have any questions please give us a call.

## **Stool Occult Blood Test Protocol:**

An occult blood test is used to assess microscopic blood in the stool. This test is a screen for various gastrointestinal diseases. A special diet must be followed, as consumption of certain foods may alter test results. The following foods/medications must be avoided for two days prior to and during the sample collection:

1. Red or rare meat. (Small amounts of chicken, turkey and tuna are allowed.)
2. The following raw fruits and vegetables: turnip, broccoli, horseradish, mushrooms, cauliflower, cantaloupe, parsnip, red radishes, apples, bananas, cantaloupe.
3. Also if possible, avoid ingesting aspirin or other anti-inflammatory drugs (NSAIDS) and high doses of Vitamin C (more than 250 mg a day).

If you have toilet bowl cleaners you will need to remove them from toilet tank and flush twice prior to sampling. Females: do not collect samples during or until 3 days after your menstrual period is over.

## **Instructions for Specimen Collection and Handling**

After adhering to the above diet for two days, obtain stool specimens from three consecutive bowel movements or ones as close together as possible. The procedure is as follows:

1. Use the cards and applicators provided.
2. Write your name, age and date of collection on sampling card.
3. Obtain a small sample of stool from the toilet bowl.
4. Place a very thin smear of stool on the occult blood card in slot A.
5. Obtain a second sample of stool from a different location.
6. Apply a very thin smear to the card in slot B.
7. Allow the smears to air dry.
8. Close cover and store card away from heat and light. Do not refrigerate.
9. Obtain a second and third sample from the next two evacuations in the same manner as above.

Return the cards to SPM within 5 days of sample collection.

## **Body Composition (Body Fat):**

Body composition measurement is a key component of monitoring health. It provides more useful information than total weight, by differentiating between fat and lean weight. It is important to learn what you are made of, as high body fat percent is associated with many chronic diseases. Abnormally low body fat percent is also detrimental to health and reflects a lean mass deficit.

SPM uses the bioelectrical impedance method of body composition measurement. This method is desirable for its ease and accuracy. This method relies on body water content to differentiate lean and fat weight. For the most accurate measure of your body composition, please follow the instructions below.

1. Be well-hydrated, but do not consume abnormally large amounts of water prior to testing.
2. Do not exercise 12 hours prior to testing; sweating is a form of water loss.
3. No caffeinated or alcohol containing beverages (coffee, tea, sodas, energy drinks) for 24 hours prior to testing, they are diuretics.
4. Avoid eating and drinking anything but water for 4 hours prior to testing.
5. Void within a half hour prior to the test.
6. If you take diuretics, do not take your diuretic prior to the test unless instructed to.
7. Remove all jewelry prior to test.

## **Strength Test:**

We will perform a 10-rep max strength test to extrapolate your predicted 1 Rep Max and correlating strength score. Please follow the instructions below.

1. Avoid strength workouts for 48 hours prior to testing
2. Be sure to have normal nutrition the day of testing and eat within 1 hour of the test
3. Wear comfortable clothing and athletic-type shoes. We will not be able to do the test if you are in open-toe shoes or shoes with heels.
4. It is advisable to refrain from strength training for 48 hour following your strength test.

## **Resting Metabolic Rate:**

Measuring the resting metabolic rate helps determine how many calories you burn during a day without exercise. Exercise metabolic rate can be measured during a VO2max test. SPM uses a gas exchange system to determine your resting metabolism. We use this information to guide your nutrition program. For the most accurate measure, please follow the instructions below.

1. Unless instructed otherwise, refrain from eating for 4 or more hours prior to testing.
2. Do not exercise for 12 hours prior to testing, unless it is a very leisurely pace.
3. Avoid caffeinated beverages prior to testing if testing first thing in the morning, otherwise allow 5 hours after caffeine prior to testing.
4. Avoid strength training for 24 hours prior to testing unless instructed otherwise.

## VO<sub>2</sub> Max and HR Zone Testing

A single sport test takes 2 hours, the VO<sub>2</sub>max test takes 2.5 hours and a multisport test takes 3-3.5 hours. During this time, you will receive a resting metabolic test and exercise test(s) using gas exchange technology. You will wear a mask that allows you to breathe freely while collecting and analyzing the air you exhale.

In order to optimize the results of your test, please follow these instructions:

### **How to prepare:**

1. For at least three days prior to testing, consume adequate calories and emphasize carbohydrates at each meal/snack and following each training session.
2. Assure adequate hydration prior to testing.
3. Refrain from smoking, drinking alcohol or caffeine for 4 hours prior to the test. Do not consume red hot peppers the day of the test if you are having an EKG test.
4. Nothing but water for 3 or more hours prior to testing.
5. Taper physical activity for 2 days prior to testing. Light to moderate activity or easier workouts are appropriate.
6. Get adequate sleep the night before the test.
7. Wear lightweight, comfortable clothing (shorts, sweats, socks, athletic shoes or bike shoes). Bring your bike if testing on the bike.
8. Notify the staff ahead of time, if you have any injuries or illness.
9. Cyclists please read and follow the bicycle preparation (attached). Tests will be cancelled and we will need to charge you for the time reservation if your bike does not meet the requirements outlined in the instructional section for cyclists. Please pay special attention to tire type and size.

### **Cancellation Policy:**

If you are unable to keep this appointment, you must cancel 2 business days prior to your scheduled time or you will be charged in full. Extenuating circumstances will be considered on a case-by-case basis. **Please feel free to contact us if you have any questions or comments. We can be reached by email at [frontdesk@spmedicine.com](mailto:frontdesk@spmedicine.com) or by calling 206-632-4575.**

### **What to expect:**

1. You will wear a mask that confines both your nose and mouth. Some individuals have felt claustrophobic when wearing the unit. The apparatus does allow for full exchange of breath.
2. Runners: You will begin at a slow pace on a level surface. As the protocol proceeds, the incline and / or speed will increase depending on the protocol chosen. Once the incline begins, the actual test will last from 8-15 minutes. A second intermediate level test may be done on a level treadmill, depending on the protocol utilized.
3. Cyclists: This test is performed in two parts. You will pedal at a fixed cadence during the tests. After an adequate warm-up the resistance is gradually increased until lactate

threshold, then you'll have a 5-10 minute active recovery and then during part 2, the resistance is ramped until exhaustion.

4. You will be asked to rate your exertion during the test.
5. A finger-stick blood test may be performed in some cases during the first part of the bike testing.
6. The test is a stress test. Your body will be stressed to the point of exhaustion. Some individuals have reported feeling nauseous, lightheaded or weak within the last few seconds of the test.
7. Following the test, you will nourish and shower if you choose to and will then go over your results with SPM staff and Dr. Cooper.
8. For swim testing or other testing involving field testing (off-site) please contact our office for details and instructions.

### **Bicycle Preparation:**

1. You will be tested on a Racermate Velotron ergometer. We suggest you bring your bicycle so that we can set up the ergometer to simulate your normal riding position. If you do not want to bring your bike, you will need to bring your pedals and take specific measurements of various aspects of your bike fit.
2. If you would prefer to take these measurements yourself, please contact us for instructions. Otherwise, we will perform the measurements and prepare your pedals while you are completing the check-in and resting metabolic test portion of your appointment, just prior to the exercise test.

### **Sprint Test (Anaerobic Capacity Test):**

We will perform a maximal effort 40-second sprint, either on a bike or a track and check your peak lactate blood level by finger-stick. Please follow the instructions below for the most accurate result.

1. Avoid particularly hard or long workouts for 48 hours prior to testing.
2. Be well nourished and adequately hydrated. Consume a high carbohydrate snack 1 hour prior to your appointment.
3. Wear appropriate clothing and shoes for the sport you are to be tested in.
4. Following a brief warm-up, you will be asked to perform a single maximal 30 or 40 second effort. Your power output will be measured as well as your blood lactate level which will be obtained through a finger-stick blood sample.
5. If you are performing the testing on a bike, you will need to bring your pedals and also your bike, unless we already have your bike measurements on file. If you are not sure, please call us to clarify prior to your appointment.