

## CHAPTER 5

# NUTRI-SPEC Testing Instructions

The NUTRI-SPEC goal of nutritional specificity necessitates the use of objective testing procedures. The instructions below present the clinical tests proven to be most efficacious, i.e., those providing the most information with the least time and energy expended. These are explicit instructions for the NUTRI-SPEC test procedures. As you perform the tests, enter your results on your patients' Test Results Form (TRF). Do all three Analyses and integrate the findings into one set of recommendations.

It is essential that each test be performed accurately. **Your staff should spend several days practicing the procedures on each other before attempting to serve patients.** The power of NUTRI-SPEC Metabolic Balancing is realized only when you can produce meaningful test results.

The order in which you perform all the tests for NUTRI-SPEC Metabolic Imbalance Analysis is ...

- Urine pH (using a pH strip, not the Multi-Stix) and Multi-Stix tests
- Saliva pH and 3-minute change in SpH
- (Adjust the UpH, SpH, and SG as necessary for medications.)
- Calculate Hydration = (Adj SpH + Adj UpH – Adj SG) and enter on the TRF
- Dermographics and Turgor Testing
- Pa = Heart Rate sitting
- Respiratory Rate = Counted immediately after lying supine
- P1 = Counted precisely 30 seconds after supine
- SBP1 and DBP1 = Lying supine
- P2 = Counted as patient stands up
- SBP2 and DBP2
- P3 = Counted at least 2 minutes after standing
- Breath Hold Time = Patient sitting

**Urine Tests:** Dip the Multi-Stix into the urine and hold there for 5 seconds. Pull the strip out of the urine and rest it on the rim of the urine cup. Dip a pH strip in the urine and hold for 5 seconds, then read the urine pH immediately and record on your TRF. By that time you are ready to begin reading the results of your Multi-Stix, and record each on your TRF. Note that 2 minutes must pass before you read the final 2 tests on the Multi-Stix.

**Patient Positioning Sitting:** Ask your patient to sit on the exam table facing you, in a position from which he will be able to lie supine without standing up or scooching along the table.

With the patient sitting relaxed on the exam table, say, “Please, no talking while I test --- it throws off the results.” Count the Heart Rate for 15 seconds and multiply by 4 (= accurate to  $\frac{1}{4}$  cycle =  $17 \frac{1}{4} \times 4 = 69$ ). That is your patient’s Pulse a (Pa). Record Pa.

**Saliva:** Hand the saliva pH test strip to your patient, saying, “Place this, color side down, on top of your tongue and seal your lips around it so no air gets on it --- let it go --- now get it really wet with saliva. Is it really wet?” (When yes ... grasp the test strip.) “Open your mouth.”

Remove the test strip and make your reading within 3 seconds. Be certain to interpolate between the numbers on the color scale so you get a reading precise to one-tenth. Record the reading on your Test Results Form (TRF).

Place the test strip on a tissue and set a timer for 3 minutes. During those 2 minutes, you will move on to the Dermographic Reflex and Turgor Test as described below. ----- At 3 minutes read the test strip again. Provided the patient thoroughly soaked the strip, you will note that the pH is significantly higher than it was originally. Record the 3-minute reading on your TRF and subtract the original SpH to get the 3-minute change, and record that on your TRF.

**Drug-Adjusted UpH, SpH & SpGr:** For patients taking any of the drugs listed on the left side of the TRF, you must adjust the SpGr, UpH & SpH per the instructions provided.

**Dermographics Reflex:** “Next, I am going to check your Dermographics Reflex. I am going to stroke your arm using a tongue depressor with enough pressure to be a little uncomfortable. If it starts to hurt a little, tell me and I’ll lighten my pressure.”

Your left hand supports the patient’s right forearm, palm up. With the tongue depressor, firmly and slowly stroke a line from 2” above the wrist to 2” below the elbow. Shift the grasp of your left hand to behind the upper arm as you stroke the bicep area from 1” above the elbow, up the arm 3-4”. Then, stroke a horizontal line 2-3” long bisecting that vertical line. Finally, go back down to the forearm vertical line and stroke a 3” horizontal line at its midpoint.

While you are waiting 60 seconds for the Dermographics Test to complete its short-term reaction, go on to the Turgor Test.

### **Turgor Test.**

Patient's hand is palm up, with the elbow bent at the waist and enough that the hand is a few inches higher than the elbow. Grasp the hand and press firmly with your thumb into the distal hypothenar eminence (little finger side of the palm) between the 2 palmer lines. Remove your thumb, and count the number of seconds until the indentation in the tissue completely disappears.

### **Turgor Check**

- +1 = indentation persists for 2 to 5 seconds
- +2 = indentation persists between 5 and 10 seconds
- +3 = indentation is still visible longer than 10 seconds

### **Begin Test Interpretation.**

- Check the 1-minute reading on Dermographic Reflex, and either make a mental note what you see, or, if the reflex is completed, record the results on your TRF.
- Record the Turgor Test result on your TRF.
- Record your 2-minute SpH on your TRF.
- While waiting a bit longer for your final Dermographic check, calculate your Hydration ( $\text{Adj SpH} + \text{Adj UpH} - \text{Adj SG}$ ), and enter on your TRF.

**Dermographics Reflex Check** --- Make your final reading and enter on your TRF.

### **Dermographics Check**

- R4 = wide neurogenic flare, perhaps itching (or even welts) within 1 minute
- R3 = flare initially wider than tongue depressor contact width, or, red lines nearly that wide that last several minutes
- R2 = red lines on upper arm and forearm last several minutes
- R1 = red lines on upper arm last several minutes as forearm lines disappear
- 0 = red persists 1 minute, but no red is apparent after several minutes, and there may be a white border around the red
- W1 = no red is apparent after 1 minute, and either there is initially red with white border, or there is a purely white line that persists no more than 1 minute
- W2-W4 = degrees of white width or duration

**Pulse a:** [You may use a digital blood pressure cuff to measure the blood pressures --- however --- you cannot measure the heart rate using any kind of digital device for the Pulse a, P1, P2, or P3. You must actually palpate the radial pulse while using a timer.] Position your blood pressure cuff. Explain: “I am going to take several pulses and blood pressures, some of them after I have you lie down and some after I ask you to stand up again. It is essential that you do not talk at all the entire time I am testing and recording your results.” Count your patient’s heart rate for 15 seconds. If at 15 seconds he is between beats, count  $\frac{1}{2}$  beat. Multiply by 4 and enter on your TRF under Pa. For example, a count of  $16\frac{1}{2}$  is entered on your TRF as 66.

**Position Your Patient Supine:** “Do not talk. Without standing up, lie down on your back.” For obese, weak, or geriatric patient’s help swing the legs up into the recumbent position, and/or support the back of the neck as the patient reclines back into the supine position.

**Respiratory Rate:** Immediately as the patient assumes the supine position, place your fingers on your patient’s radial pulse (so he does not know you are counting his Respiratory Rate) as you count the number of respiratory cycles in 30 seconds. Consider the inhalation phase as half a cycle, and the exhalation phase as half a cycle. So, for example, if you have counted 8 complete cycles and your patient is completing inhalation as your timer reaches 30 seconds, your count is  $8\frac{1}{2}$ . If at 30 seconds he is halfway through an inhalation, your count is  $8\frac{1}{4}$ , if he is half-way through exhalation, your count is  $8\frac{3}{4}$ . In other words, you are counting respiratory cycles to the nearest  $\frac{1}{4}$  for 30 seconds. Double your 30 second count and enter that number on your TRF. Example: a count of  $8\frac{3}{4} = 17\frac{1}{2}$  on the TRF. (Do not record the Respiratory Rate yet.)

**Pulse 1:** Immediately after completing the Respiratory Rate (i.e., exactly 30 seconds after lying supine), count the Heart Rate for 15 seconds (= accurate to  $\frac{1}{4}$  cycle) and multiply by 4. This is Pulse 1 (P1). Record the Respiratory Rate and P1. Subtract and record (Pa – P1).

**Blood Pressure 1:** Take your patient’s blood pressure and record on your TRF as SBP1 and DBP1. (Leave the cuff on the patient’s arm, deflated.)

**Orthostatic Challenge --- Pulse 2, Blood Pressure 2, Pulse 3:** In seamless, rapid succession you are going to perform the 3 tests of the orthostatic challenge. Say to your patient, “Please do not talk. When I ask you to stand up, please stand here, right beside me. I will be doing several more tests as you are standing up and then while you are standing. Do not talk, and after you stand, do not move. Now, stand up right here.”

The instant your patient’s feet hit the floor begin counting his heart rate to the nearest  $\frac{1}{2}$  for 15 seconds. Remember that P2 rate count and immediately

begin inflating your cuff and complete the second blood pressure. Immediately, multiply your heart rate count by 4 and record on your TRF as P2. Record your blood pressure findings as SBP2 and DBP2. Wait one minute after recording P2, SBP2, & DBP2, then, count the heart rate once again to the nearest  $\frac{1}{2}$  for 15 seconds, and record on your TRF as P3. ----- Say to your patient, "You may sit down, but please do not talk."

**Breath Hold Time** : Instruct your patient: "You are going to hold your breath as long as you possibly can. I am going to time how long you can hold your breath, and it is important that you hold it as long as possible. This may be the most important test we do, so do your very best. When you absolutely cannot hold your breath for another second, let it out. When you are ready, begin holding your breath as long as you possibly can."

As the patient inhales, start your timer. The instant your patient exhales note the seconds on your timer. Record the Breath Hold Time on your TRF.