

NOISE CHECKLIST

IMPEDANCE: \im-pe-dn(t)s\ n (1886) : something that impedes: HINDRANCE the apparent opposition in an electrical circuit to the flow of an alternating current that is analogous to the actual electrical resistance to a direct current and that is the ratio of effective electromotive force to the effective current. *"Impedance" Merriam-Webster.com. 2011. <http://www.merriam-webster.com> (10 May 2012).*

Impedance in NCV/EMG studies can be divided into 3 categories: **Environment**, **Equipment** and **Patient Prep**.

Environment:

1. Check office area for best exam room.
2. Don't choose a room next to an x-ray or other major medical device.
3. In chosen room check for closest, newest 110V outlet.
4. Remove any other electrical cords from outlet.
5. If patient is on electrically operated Doctor's table, unplug before testing.
6. Turn off all unnecessary lighting.
7. Place patient away from all metal objects.
8. Overhead fans have been known to cause interference.

Equipment:

1. First check wire and connections between Focus and laptop.
2. Charged laptop should be disconnected from wall outlet (Remember to plug in the laptop after the exam is over so you have enough battery life for the next exam).
3. Switch from regular electrodes to Alligator Clip Shielded Cables (with Blue Sensor Tabs).
4. Make sure Focus is not on or near a metal table.
5. All three electrodes should be firmly inserted into appropriate receptacles.
6. Focus stimulator cord should not touch or cross electrodes.
7. Electrodes should be firmly placed on skin without wrinkles.
8. Check Focus Impedance button to make sure all three are in green. 8 At minimum all three should be yellow and below "30 ".
9. Go to setting>go to edit>go to hardware> make sure set at 60 Hz

Patient:

1. Wear comfortable, loose fitting clothes with minimal jewelry.
2. Clean hands and legs with soap and water.
3. Use alcohol to thoroughly remove any oils or moisture from skin.
4. Use "Nuprep" skin prepping gel on exceptionally difficult skin.
5. Make sure extremity being tested is totally relaxed.
6. Any extremity being tested should be free of any muscle involvement.
7. Position patient away from any metal on table or legs.
8. EMG impedance can be reduced by manipulation of red electrode location.