

MEASUREMENT GUIDE

BODY COMPOSITION ANALYSIS

1. Patient lies in a supine position on a non-metallic surface.

Have the patient remove shoes and socks, watches, bracelets and anklets. Ask the patient to lie on their back with feet shoulder width apart and hands by their sides. If necessary, place a towel or sheet between the patient's legs or between the arms and torso in order to prevent skin-to-skin contact.

2. Clean sites of electrode placement.

Identify the sites where the electrodes will be placed on the wrist and hand of one arm, and on the ankle of the foot on the same side of the body. Clean the sites with an alcohol swab. Allow these sites to dry for 30 seconds before placing electrodes in position.



3. Apply the electrodes.

Note: Measurements can be done on either the right side or the left side, but do not mix sides. Consistent measurement practices and electrode placement are important to obtain accurate results.

Using the anatomical locations described, carefully place electrodes in position. Do not press down on the electrodes too firmly while applying. Apply all four electrodes prior to attaching the alligator clips.

Left Hand

Place the proximal electrode on the midline of the ulnar styloid process, on the wrist, so that the tab faces outward from the body. Place the distal electrode down towards the fingers in a similar manner and such that the midpoints of the two electrodes are spaced 5cm apart.



Left Foot

Place the proximal electrode between the medial and lateral malleolus bones, on the ankle, so that the tab faces outward from the body. Place the distal electrode down towards the toes in a similar manner and such that the midpoints of the two electrodes are spaced 5cm apart.



4. Attach the leads.

Attach an alligator clip to each of the probe ends of the four leads. Apply leads according to the color code below. Use the alligator clips to connect each lead to the tab portion of an electrode.

Ensure that the metallic part of the clip is in direct contact with the conductor side (underside) of the electrode tab and that the clips are aligned to the centers of the electrode tabs.

Yellow (Sense lead)

The yellow lead end is attached to the proximal electrode on the right hand next to the wrist joint as shown.



Red (Current source lead)

The red lead end is attached to the distal electrode of the right hand as shown.

Blue (Sense lead)

The blue lead end is attached to the proximal electrode of the right foot next to the ankle joint as shown.



Black (Current sink lead)

The black lead end is attached to the distal electrode of the right foot as shown.



Typical set-up for measurement.

BODY COMPOSITION HELPFUL HINTS

1. Only use ImpediMed Electrodes. Do not reuse electrodes. Do not cut the electrode, use whole electrode only.
2. Run the test cell each day that a measurement is to be taken.
3. Inform the patient prior to a visit to come normally hydrated:
 - Voided (empty bladder)
 - No exercise 2 hours prior to reading
 - No caffeine 2 hours prior to reading
 - No alcohol 12 hours prior to reading
4. Inform the patient not to wear stockings or pantyhose as an electrode will be placed on the ankle.
5. Attempt to take measurement at the same time during the day or month for each patient.
6. Be certain the patient is not pregnant and does not have a pacemaker or other implanted electronic devices. If so, do not take measurement.
7. Take note if the patient has any metal implants. Metal implants may alter the measurements made by the ImpediMed device. This offset may affect the initial reading relative to the normal ImpediMed device range but should not affect the ability to track the change in the ImpediMed device value over time. If implants exist on only one side, use opposite side for measurement.
8. Use an alcohol swab to clean the skin prior to electrode placement, especially if the patient is wearing any gels, lotions or sunscreen. Make sure to allow the alcohol to dry completely before placing the electrodes on the skin.
9. If the electrode sites have excess hair and do not allow proper electrode adherence, shave the sites.
10. Avoid placing an electrode on irritated skin or wound sites. If skin irritation occurs seek professional advice.
11. Place the electrode so it lies flat on the skin and press gently to ensure entire electrode is sticking. Do not press down so firmly that gel squeezes out from under the electrode.
12. When attaching a lead to the tab of an electrode, do not place the clip into the gel.
13. When the subject is in the supine position, ensure that the patient's limbs are not crossed (so the electrical path is not short-circuited) and that their legs are completely separated. For patients who cannot effectively separate their inner thighs, it may be necessary to place insulating material (e.g. a towel) between them. Also ensure the arms are not touching the torso.
14. Ensure the person remains supine for at least 3 minutes, but no more than 10 minutes.
15. Ensure the patient is not touching metal when they are in the supine position.
16. Have the patient remain still and relaxed during the measurement.
17. Always check to ensure that the electrodes are properly positioned and that the color-coded leads are in the correct position prior to taking a measurement.
18. Do not leave the electrodes attached to the skin for longer than 1 hour.
19. Make sure the electrode packs are zip sealed after you are done with them so they do not dry out.

