

# Estim Monopolar Protocol

1. Use good clean technique to remove the dressing while minimizing discomfort to the patient.
2. Cleanse wound with lots of sterile water or saline. Provided you have the knowledge, skills, and judgment remove foreign materials or devitalized tissues using appropriate debridement techniques.
3. Inspect the wound, and perform a standardize wound assessment and documentation.
4. Fill the wound with inert packing material that is capable of absorbing wound exudate but does not dry out the wound bed. (Check list of wound products that can and cannot be used with Estim).
5. Ensure the wound packing is moist and able to conduct electrical current (may need to add hydrogel or saline if the dressing is too dry). Better to be too wet than too dry.
6. Select an appropriate electrode and place it over the wound packing. There are several different types of electrodes (i.e. self adhesive, black carbon, or silver nylon material). Ensure there are no air pockets between the electrode and packing.
7. Secure the electrode in place using wraps or tape. Ensure the electrode stays in place and makes even contact across the entire electrode. There should be electrode conductive gel (sterile hydrogel) located between the electrode and any exposed skin. During initial treatments you should check the electrode set up several times to ensure that packing, electrode, leads and cover dressings all stay in place for the entire treatment.
8. Cover the wound and electrode with a cover dressing that maintains appropriate wound moisture throughout the treatment and holds the electrode in place.
9. Some electrode materials (self adhesive) can remain in the wound and designed so that they will not produce pressure points or other damage to fragile wound and peri-ulcer tissues.
10. Protect peri-ulcer skin and wound tissues from physical injury due to pressure produced by electrode or lead wires
11. Place a larger dispersive on intact skin located at least 20 cm from the wound. Ensure that the entire electrode is in contact with the skin during the treatment. If using a self adhesive electrode material make sure that the self adhesive does not lift or move during treatment.
12. Connect the machine to the electrodes using lead wires that are supplied with the machine. Check the equipment manual to ensure the correct leads are attached to wound and dispersive electrodes.
13. Set the stimulus parameters so as to produce mild tingling sensation (see EST protocol parameters).
14. Apply the treatment for 45-60 minutes daily being sure to check on the set up regularly if this is the initial treatment. Ensure that the patient is in a comfortable position that they can sustain throughout the treatment. They also need a way to contact you should they experience undesirable responses during the treatment. You may need to remind the patient what responses are desirable and not expected so that they know when and why to call you.
15. At the end of treatment TURN OFF the Estim MACHINE (if it has not already automatically shut down). Remove the dispersive electrode. If it is a self adhesive material be sure to replace the dispersive on clear plastic sheet and store in a plastic re-sealable airtight plastic bag. It can re-used on the same patient provided it still adhesive and is not soiled.

16. Some electrodes may be left in place within the wound dressing (you need to decide if this is feasible for each patient). If leaving the electrode in the wound, detach the lead wire from the wound electrode and secure the cover dressing. Be sure to protect the wound and surrounding tissue from any connectors that are present on the retained dressing.
17. Whatever dressing is in place between EStim treatments, it should be able to retain appropriate wound moisture (not too wet, not too dry). Any electrical current produced by the EST will be lost if the wound dries out.

### **CAUTION**

1. Do not remove or adjust the electrodes while the machine is on. – it may compromise the connection to the patient and cause a non-harmful biting sensation.
2. Secure the electrodes so that they do not move nor come in contact with each other during the treatment. When electrodes are placed too close, current arcing may occur, potentially causing a non-harmful shock to the patient.
3. Monitor skin and tissue integrity looking for permanent red marks in the shape of the electrodes – sign of skin irritation when current has become too concentrated.
4. Should a skin rash occur over the stimulation area - discontinue treatment.
5. Watch for and record autonomic dysreflexic events. Discontinue if you feel they are associated with this treatment.
6. Discontinue treatment if wound condition deteriorates. (wound size increases).
7. Make sure electrodes are intact, well moistened, secure, and in even contact with body surface.

**Any questions or concerns or if the machine is not responding as described above, you should suspend the use of the machine and contact your Estim provider**

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Name of Estim provider

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Contact (phone, email)