

**PROCEDURE**

**TITLE: SCD EXPRESS® COMPRESSION SYSTEM**

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**PURPOSE:** To outline the steps in applying a compression device

**SUPPORTIVE DATA:**

**INDICATIONS**

The SCD EXPRESS® Compression System is designed to apply intermittent pneumatic compression to increase venous blood flow in at-risk patients in order to help prevent deep vein thrombosis and pulmonary embolism. The garments AND leg sleeves compress the limbs to enhance venous blood movement. After the compression, the controller measures the time it takes for the limbs to refill with blood and waits that period of time before the next compression is initiated.

**Leg Compression:**

The use of the SCD EXPRESS Compression System with Leg Sleeves is indicated for:

1. Deep vein thrombosis and pulmonary embolism prophylaxis

**CONTRAINDICATIONS**

The SCD Express compression System **may not** be recommended for use with Leg Sleeve on patients with the following:

1. Any local leg condition in which the sleeves may interfere, such as: (a) dermatitis, (b) vein ligation (immediate postoperative), (c) gangrene, or (d) recent skin graft.
2. Severe arteriosclerosis or other ischemic vascular disease.
3. Massive edema of the legs or pulmonary edema from congestive heart failure.
4. Extreme deformity of the leg.
5. Suspected pre-existing deep venous thrombosis.

**EQUIPMENT LIST:**

1. Compression Sleeve: Stockroom
2. SCD Compression System with cord: Central Supply

**CONTENT: PROCEDURES:**

**KEY POINTS**

1. Confirm Physician Order for CDS
2. Remove SCD sleeves from plastic bag
3. Place side of sleeve with printed instructions against patient's leg. Position the sleeve so that the blue arrows printed on the sleeve are centered directly behind the patient's leg.
4. Wrap the sleeve securely around the patient's leg, beginning with the side without the hook tape.
5. Holding the ankle section of the sleeve against the patient's ankle, wrap the sleeve securely around the ankle and calf attaching the hook edge securely to the sleeve.

The sleeve should fit securely, but not tightly, around all sections of the patient's leg.

6. Repeat with the other leg if necessary. Single leg application, when only one leg is to be compressed; an unusual sleeve must be attached to the second sleeve connector. Place at end of bed.
- 7.
8. Place the Controller on the footboard via the bed hook or place it on a horizontal surface appropriate for the environment. Be sure to allow adequate air flow to the vents located on either end of the controller.
9. Plug the tubing set(s) into the back of the controller. Route the tubing toward the patient's limbs, being careful to leave access ways clear and eliminate tripping hazards.
10. Plug the tubes into garment(s) wrapped onto the patient's limbs.
11. Match the left and right ports with the left and right limbs of the patient. Although the operation of the controller is not affected, troubleshooting can be easier. Check tubing (sets) for kinking and secure attachment at the controller and the garment(s).
12. Plug the controller power cord into a properly grounded hospital grade receptacle.
13. Be certain that no flammable anesthetic gases are present
14. Press the power/standby button to begin normal operation. No further user intervention is required unless there is a fault condition detected or if therapy must be discontinued.
15. System then begins normal operation.

The controller can operate with one or two garments attached to the patient's leg.

The LED segments illuminate starting at the top of the display panel. **Remove garment if patient experiences numbness, tingling or leg pain.**

Battery life is dependent on sleeve configuration, sleeve application and battery condition.

**NOTE:** Compression unit should be plugged in when patient is stationary to insure there will be enough battery for transports and/or ambulation.

#### **Documentation**

14. Record procedure in the Nurses' Notes.
15. Document skin assessment every shift

Patients with diabetes or vascular disease require frequent skin assessment.

**References:** Kendall SCP Express Compression System Operations and Service Manual, 2007. (Copies kept in Central)