

# CONNECTICUT VALLEY HOSPITAL

## Physical Therapy Services

### PT Equipment Procedure # 44

**Re: Intermittent Compression System**

**Date: January 20, 2005**

**Revised: October 19, 2008**

#### **Description:**

The Flow press System consists of a pneumatic pump, which supplies air via connecting tubes to an inflatable, garment allowing the application of controlled pressure to gently compress the limb. This action assists in increasing the return of blood, excess fluids, improves venous stasis and encourages the reabsorption of waste products.

#### **Indications:**

1. Lymphoedema, either primary or secondary
2. Oedema, dependent, traumatic, or secondary to stroke
3. Chronic Venous Insufficiency
4. Severe arteriosclerosis or other ischemic vascular diseases

#### **Contraindications:**

1. Known or suspected acute deep vein thrombosis
2. Severe Congestive Cardiac Failure
3. Any local condition in which garments would interfere, for example, Gangrene, Recent Skin Grafts, Untreated, infected leg wounds and Dermatitis.

#### **Procedure:**

1. Patient's medical history is to be reviewed. Take the patient's blood pressure. Garment pressure should no be higher than the diastolic blood pressure. Observe contraindications carefully.
2. Explain the procedure to the patient.
3. Identify the limb or limbs to be treated. Remove all garments covering area to be treated. Position and drape the patient for comfort, modesty and easy accessibility.
4. The pump operates by 3 minutes on and 3 minutes off cycles.
5. Sequentially inflates the three-chambered garment distal to proximal.
6. Variable pressure output ranges 30-100 mmHg.
7. Initial pressure setting of 40 mmHg (30 mmHg for management of lymphoedema).
8. Upper treatment pressure range is generally 60-70 mmHg.
9. Treatment sessions are 20-60 minutes.

10. Check the type and length of the garment required. Measure the limb circumference at the largest location. Length of the leg from heel to 3 cm from the groin. Length of the arm from the fingertips to 3cm from the axilla.
11. Place the limb in the appropriate fitting garment and zip carefully to the top.
12. Check the connecting tubes are not twisted and are attached to the pumps securely.
13. Press the on/off switch. While garment is inflating, rotate the control knob slowly clockwise until the desire pressure is reached.
14. Switch off the pump and wait for garment to deflate. Open zippers when garment has completely deflated.
15. Check limb for changes.
16. Compression Cycle: Lowest chamber –114 seconds, middle chamber – 76 seconds, upper chamber 38 seconds. Deflation – 66 seconds. Overall cycle – 180 seconds.

### **Care of Intermittent Compression System**

1. Cleaning Procedure:
  - a. The garment, pump, tube-set, sensor and other ancillary parts should be cleaned weekly and in between each patient use.
  - b. Clean Machine as per Physical Therapy Cleaning Procedures.
  - c. Do not use Phenol based solutions, as these will damage the surface coating.
2. All intermittent compression machines receive Biomedical Testing on an annual basis in January of each year.