

Pneumatic Anti-Shock Garment (PASG, or MAST)

I. Reason for Use:

- A. The pneumatic anti-shock garment (PASG) is utilized to provide pressure around the lower extremities and abdomen, Mechanism of action may include:
 - 1. Increase of blood pressure in the hypotensive patient through peripheral venous compression and auto transfusion of blood with upward displacement from lower extremities.
 - 2. Control of bleeding through direct pressure.
 - 3. Stabilization of lower extremity/pelvic fractures through the PASG as a semi rigid splint.

II. Policy

- A. Request for advanced life support: An EMT who applies the PASG shall at the earliest opportunity request the services of the appropriate advanced life support unit if available in their area.
- B. Use of PASG on Physicians Order
 - 1. An EMT trained and certified by may apply the PASG on the order of a physician or physician directed registered nurse (RN), following communication with a hospital emergency department via radio or telephone.
- C. Use of PASG without Physician Order
 - 1. An EMT trained and certified may apply the PASG without a physician order in cases of clear and obvious trauma where a clinical picture of shock is presented, according to the following criteria:
 - a) Pulse greater then ($>$) 120/minute
 - b) Blood pressure less than ($<$) 80 mm Hg systolic
 - c) Other signs and symptoms of shock, possibly including cyanosis, pallor, diaphoresis, hyperventilation (greater than ($>$) 30/minute), dizziness or thirst.
 - 2. All efforts should be made to contact a hospital emergency department via radio or telephone at the earliest possible time without delaying patient care or transport.

III. Contraindications

- A. Absolute contraindications:
 - 1. The PASG shall not be applied to any patient with difficulty breathing and/or a finding of rales upon assessment of breath sounds
- B. Relative Contraindications:
 - 1. The PASG shall be applied only on the order of a physician in the following cases:
 - a) Pregnancy of the 2nd or 3rd trimester
 - b) Abdominal evisceration
 - c) Impaled object
 - d) Open fracture
 - 2. When in doubt, you may put the PASG on any patient but the hard decision is whether to inflate and what to inflate. If you have a patient who has a mechanism of injury that could cause significant trauma it won't hurt to apply the suit for precaution

IV. Procedure for Application of PASG:

Rapid transport of the patient to the hospital is a priority and should not be delayed for the application and inflation of the PASG. Any patient requiring the application of a PASG should be given 100% oxygen by non-rebreather mask at 15 liters/minute.

- Extricate if necessary and place patient onto rigid long board utilizing appropriate cervical immobilization techniques.
- Remove clothing and all sharp objects. You may leave underpants on.
- Place PASG under patient. Align upper border of PASG 1 inch below the last posterior rib.
- Secure leg sections being sure all creases are removed
- Secure abdominal section (except when relative contraindications exist)
- Attach pump and check all valves for closure
- Check and record vital signs (BP/P/RR) and time
- Assess and record lung sounds
- If vital signs/lung sounds meet requirements then open leg valve(s) and inflate until Velcro crackles or pop offs open.
- After inflation, close leg valve(s)
- Recheck vital sign and lung sounds

IF BLOOD PRESSURE IS STILL LESS THAN 100, PULSE 120 OR GREATER, NO CONTRAINDICATIONS

- Open abdominal section valve and inflate until Velcro crackles or pop off values open, close abdominal valve
- Recheck vital signs and breath sounds; record with time

V. Notification, Transportation and Reporting

- A. An EMT who applies the PASG shall notify the receiving hospital by radio of the application and time of inflation of the PASG.
- B. Victim of severe multi-system trauma should be transported to the nearest appropriate facility, with the approval of the physician providing medical direction to the EMT.
- C. An EMT who applies the PASG shall provide a written report to the receiving hospital. This report shall include names and involvement of PASG application

VI. Deflation: AT NO TIME IS THE MAST SUIT TO BE DEFLATED IN THE FIELD

After arriving at the hospital you may be needed to assist with deflation.

The hospital should have the patient managed with IV fluids, operating room available, and a surgeon standing by.

- Never cut the PASG
- Disconnect the pump
- Deflation should be 30-60 minutes total. Approximately 10-20 minutes per section.
- Each section deflated at slow intervals starting with the abdominal section.
- After letting a small amount of air out the BP/P are checked each time. If the BP decreases 5 mm HG then that section should be re-inflated.
- The emergency department is responsible for the patient. The EMT can be utilized for guidance.