Abdominal Aortic Tourniquet
Compression Works LLC

Indication for Use: Control of Difficult Bleeding in the Inguinal Area

The inguinal region constitutes one of the most difficult problems of junctional bleeding faced in penetrating trauma. Junctional bleeding occurs in areas of the body that are not easily amenable to tourniquet application. They are generally the areas where the torso meets the extremities.

Proximal compression of vessels is still the most effective way of hemorrhage control. The abdominal aortic tourniquet does this by compressing the descending aorta at or near the bifurcation. Animal studies demonstrate that the device is safe up to 60 minutes of application. Human studies show that the device is effective at stopping blood flow in the femoral arteries at inflation pressures of 230 mm Hg

Contraindications for Use

Absolute Contraindications:
- Known abdominal aortic aneurysm
- Pregnancy

Relative Contraindications:
- Abdominal penetrating trauma

The risks versus benefits of the device should be considered prior to any application. The dangers of junctional bleeding include imminent exsanguination and death. If direct pressure, extremity tourniquet application and hemostatics do not result in cessation of bleeding the Abdominal Aortic Tourniquet provides for a direct pressure capability to cease the flow of arterial blood below the application site.

Preventive Maintenance Checks and Services (PMCS)

The device is packaged in a ready to use state in vacuum-sealed packaging. The device is non-sterile so it remains ready-to-use if the vacuum-seal is lost. If the packaging appears to be overtly damaged, whether this is signs of environmental stress or physical damage, or the device is carried out of its packaging then routine PMCS should be conducted as followed.

- Remove device from pouch
- Unbuckle and extend belt, inspect for cuts or fraying. Do not use if belt contains a cut extending more than 2 mm.
- Inspect buckles for cracks or breaks.
- Ensure windlass is at its initial state without any twisting.
- Inspect windlass retention hardware for breaks. Do not use if the windlass retention mechanism is broken.
- Inspect tubing for signs of wear and damage, if the tubing appears to be damaged, progress to the next step to ensure there is no air leak in the system.
- Inflate bladder until pressure gauge shows at least 0.5 cm of green indicating greater than 250mm Hg pressure. Allow bladder to remain inflated for 5 minutes. If the pressure gauge drops to the point that the green indicator is not visible then do not use device. A pressure leak may be in the system

For more information contact Compression Works LLC

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Hemorrhage Stops Here™

Instructions for Use

WAIST – WINDLASS - WEDGE

1. Buckle device around patient's waist
2. Position bladder over umbilicus (belly button)
3. **Tighten belt**
4. **Tighten** and secure windlass
5. Inflate bladder (wedge) until green indicator shows

THE DEVICE MUST BE VERY TIGHT BEFORE INFLATION

The tighter the belt is prior to inflation (achieved by good firm pulling of strap to take out all slack and tight windlass application), **the more stable and effective the device**. A tight belt allows aortic compression at lower bladder volumes. Lower bladder volumes result in the device rising off the abdomen less than a fully inflated bladder. The higher the device rises off the body the less stable it is.

The inflation system incorporates a bleed-off design to limit pressures under 300 mm Hg. The bench testing on bladder failure show that pressures over 1034 mm Hg can result in RF weld leaking or rupture. Inflation until the pressure indicator reveals a green strip indicates that the pressure in the bladder has reached 250 mm Hg. At 230 mm Hg, 100% of the human subjects had full occlusion of the flow in the femoral arteries.

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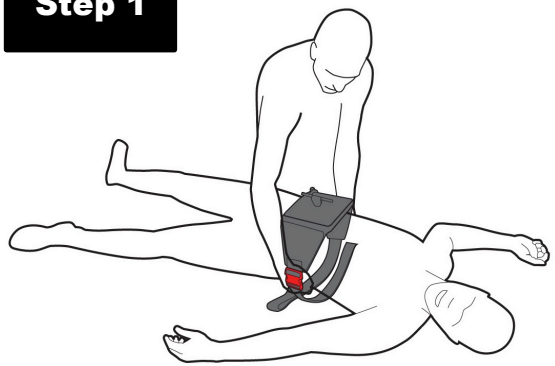
Step 1



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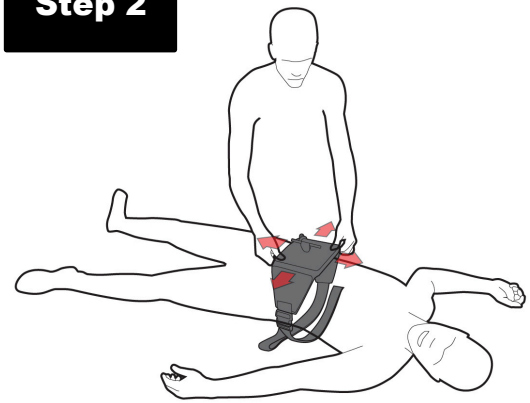

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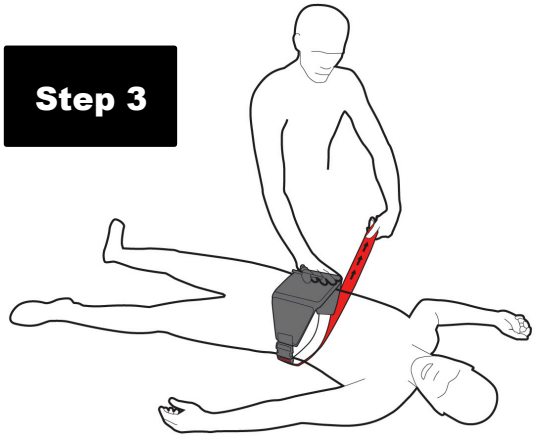

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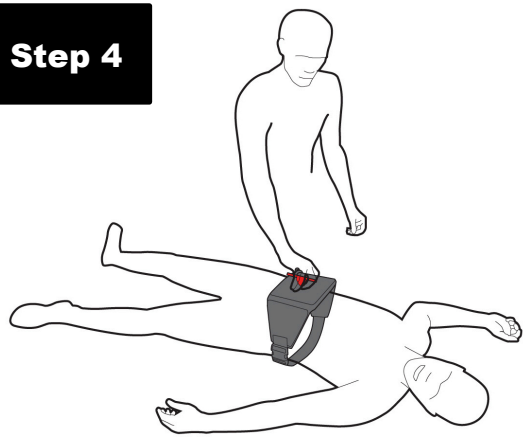

Step 5