Junctional Tourniquet for Groin and Axillary Regions

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Technology description

The Need

Patients with blood loss in the field need to be treated immediately to prevent ongoing blood loss, shock, and death; bleeding from extremity and junctional wounds is the leading cause of potentially preventable death from penetrating injuries. Direct manual pressure is effective for the initial control of most bleeding injuries, but tourniquets are now the standard of care. Wound packing is also effective for junctional injuries with bleeding but not easy to perform for most care providers in the field. Junctional tourniquets attempt to solve these problems by applying pressure to wounds mechanically while held in place by a tactical belt. The current commercial junctional tourniquets are expensive, bulky, hard to use, and can easily displace when the patient is moved.

The Technology

The junctional tourniquet designed by Dr. James McElroy and engineers at the Ohio State University solves the problems of current junctional tourniquets. Their tourniquet features an arterial occlusion plate that is held in place with a tactical-style belt and is tightened via a novel ratcheting lock mechanism that is easy to use, compact, and lightweight.

Application area

Wound treatment for the civilian, military, law enforcement, and EMS markets

Advantages

Smaller
Less expensive
Easier to use
Stays in place
A tourniquet with a ratcheting lock to keep pressure on wounds in the groin and axillary regions. Hemostasis can be achieved while the patient is still in the field.

Institution

Ventech Solutions

Inventors

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