



FALLSTOP® SAFETY V-PROTECT

V-PROTECT
System to protect against suspension trauma



The patented leg padding V-PROTECT prevents interruption of the blood circulation

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The V-PROTECT system significantly reduces the risk of a suspension trauma and increases the ergonomic qualities of a full body harness. The complex design of the leg padding prevents obstruction or even interruption of the blood circulation.

The methods for arresting a person after a fall with fall arrest equipment are being continuously improved. In search of perfection, the question naturally arises: What to do with a body suspended in a full body harness? A lot of work has gone into this over the past ten years. The priorities now not only lie on the feasibility of rescue but also on safety.

Suspension trauma can be fatal

An important criterion here is the effect of the suspension trauma. If a motionless body is suspended for a long time in a full body harness, this can obstruct or even interrupt the blood returning from the legs, which in turn can lead to a suspension trauma, a circulatory shock with serious or even fatal consequences. Trials and tests have proven that the length of time in which a person can remain freely suspended in a full body harness without harm is very short. The rescue missions, i.e. freeing the person from their suspended position, should

take place within 15 to 30 minutes; although this can vary from situation to situation, in particular depending on what equipment is used and how it has been adapted to the body. The short timeframe within which the casualty must be rescued necessitates targeted and fast action. The new V-PROTECT system can significantly prolong the suspension period. It reduces the risk of suspension trauma considerably and increases the ergonomic qualities of a full body harnesses.

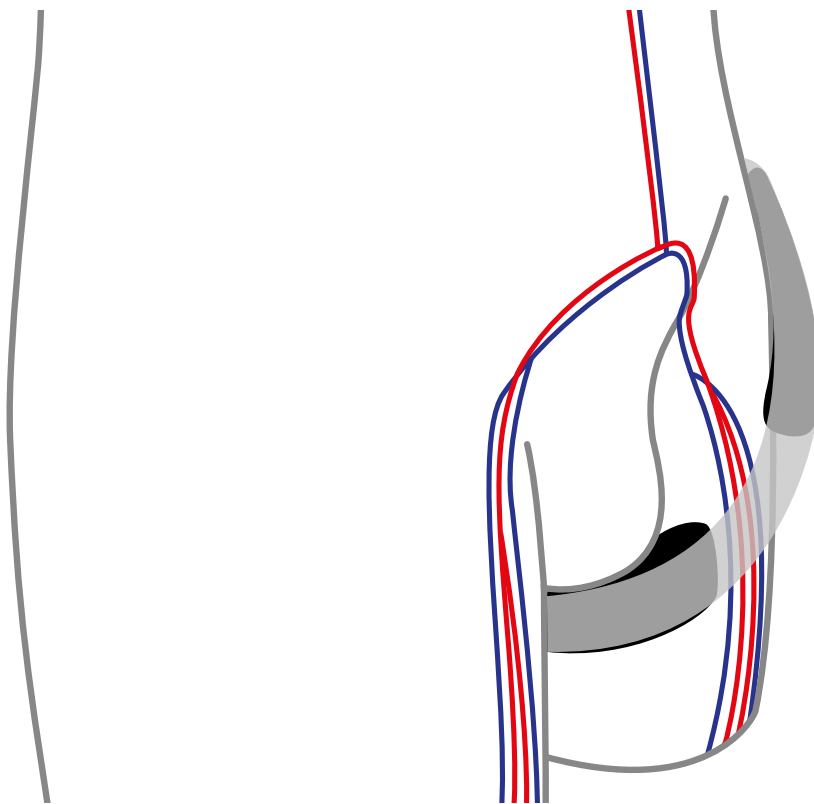
What is V-PROTECT?

V-PROTECT is a globally patented padding system that prevents obstruction or interruption of the blood circulation in persons freely suspended in a full body harness. The V-PROTECT system is particularly effective for unconscious persons who have been hurt during the fall or who have collapsed and therefore hang motionlessly in the full body harness. Current suspension relief methods, e.g. safety traps, assume that the casualty can move.

This makes V-PROTECT the only sensible alternative and supplement to the current suspension relief methods.



Distance pads



The space below the V-PROTECT pads protects the veins (blue) and arteries (red) from pinching

How does V-PROTECT work?

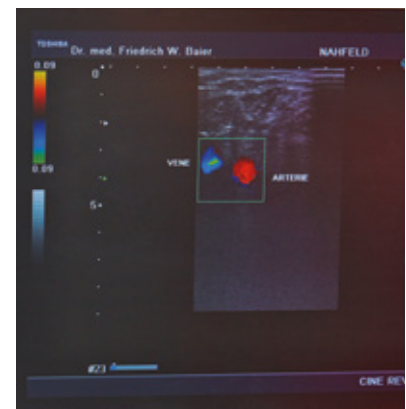
The V-PROTECT system is made of distance pads that are affixed to the leg straps. The pads create a type of bridge across the vein areas and therefore prevent 'pinching' which obstructs the blood circulation. The space between the pads must lie above the veins. The full body harness must be adjusted so that it lies snugly on the body and will not slip in the event of a fall and subsequent suspension.

Medical examinations conducted for a PhD showed that even slight pressure on the veins on the inside of the thighs can interrupt the flow of blood to the heart. Ultrasound studies show the flow of blood and highlight the restriction of the vein diameter.

Tests with the V-PROTECT lead to an increase in the suspension times in the full body harness of 50 to 100 %. The intensity of the effect varies depending on the harness geometry, the physique of the wearer, the clothing below the full body harness and the individual settings of the full body harnesses.



V-PROTECT in an ultrasound test



Veins and arteries in an ultrasound test

V-PROTECT in full body harness

The V-PROTECT system is used as standard in selected BORNACK full body harnesses. Also, the system is available as a retrofit kit for other full body harness makes. Before use, check compatibility with the design of the full body harnesses. The V-PROTECT system can be attached to both closed leg strap loops and also to leg straps that can be opened.

Technical data

- Total weight: 100.0 g
- Length: 325.0 mm
- Harness strap width: 45.0 mm
- Material: closed pore foam with skin-friendly textile coating, formed into a special profile in a thermal pressing procedures, base plate in polyamide



V-PROTECT attached to full body harness STRIPE BASIC with CLICK fastener



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