

# Bulgarian Cave Rescue Stretcher



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## Specifications

- Dimensions in bag (packed for transport) – 35x35x80cm
- Dimensions fully assembled and laid flat on the ground – 60x200cm
- Weight of full kit (including stretcher, poles, pads, bag, karabiners, slings) – 12kg
- Weight of stretcher only – 9kg

## Materials

- Bottom – made from one piece of polyester plate which is flexible and abrasion resistant
- Flaps, hood and stretcher body – PVC
- Poles – aluminium
- Buckles – aluminium quick buckles on the stretcher harness and double-back buckles on the lifting slings

## Transportation

When fully disassembled the stretcher with all the parts fits in a round transport bag 35cm wide and 80cm tall. It can be carried by one person in and outside of the cave. The bag can also serve as a measurement in tight places. If the bag can pass in a narrow crawl for example, the stretcher with a casualty can also pass.



## Construction and assembly

1. The stretcher consists of a body; 6 poles; 4 lifting slings; pads for the knees, back and head of the casualty.
2. The poles are inserted in special slots in the main body. The stretcher then can only be flexed around its long axis.
3. The back pad is inserted in a large slot. The pads for the knees and head are attached with Velcro at the appropriate height.





4. There are 8 handles on the stretcher (3 on the left and right side and 1 on the front and back). There are also 4 additional attachment points (2 at the front and back) for vertical hauling. All of the handles and attachments are sewn from tape which passes under the body of the stretcher and can carry the full weight of the casualty.
5. There are metal reinforcements in the four corners of the bottom plate. The PVC flaps and tapes are stitched, and the bottom plate is attached to them with metal rivets. There are no stitches on the bottom which can be torn from hauling the stretcher on the ground.

## Packing the casualty

1. There are 6 sets of straps to tie in the casualty. They support the upper body, pelvis, hips, shins and feet. All of the straps are with quick buckles. The straps can be adjusted to different body heights.
2. There is a hood to cover the head and face if needed.
3. The casualty's arms can be put inside under the flaps so that it is easier to pass tight places.



4. After the flaps are closed, the stretcher is tightened with 4 sets of external straps so that it forms a tube-like shape.





## Hauling and carrying the stretcher

- The stretcher can be carried by hand in horizontal caves with a combination of the 8 handles.
- In vertical caves the stretcher can be in a horizontal or vertical position, or in any angle between them. The lifting slings can be attached to the handles or the front and back attachment points.
- The handles and attachment points can be used for:
  - Vertical position – the 2 front attachment points
  - Inclined position – 4 of the side handles
  - Horizontal position – 6 or 4 of the side handles



- On tyroleans the stretcher can be attached in a horizontal position by joining the slings in a single rigging plate (like the 3<sup>rd</sup> image above) or by attaching the front, middle and back slings separately to the tyrolean. The first option guarantees that the stretcher remains in the same angle while moving on the tyrolean.