

CASE STUDY

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Subject	CASE STUDY: Use of Chest Harness & Cows Tails on Buoyancy Aids (PFDs)
Date Issued	March 2019

Background

Since the 1980s paddlers on white water have had the option of having a quick release harness on their PFD. This has become common place and with the addition of the cow tails have given paddlers options for how they provide safety and / or rescue from both being on the bank or in water.

How to thread the harness has been the source of research over the years. There is now a standard and the manufacturers guidance gives us clear indication of how to thread them.

The addition of the cow tail has come in and has various uses. These have been designed to allow the user to ensure that they can self-clip into the system for either on the bank or in water use. They are common place for paddlers working in bigger volume rivers around the world for towing boats to the side.

Incidents

Over the past year there have been two incidents which led to deaths. The following was common:

- Paddlers were experienced in the environment they were paddling
- Had a harness on their PFD
- They were both wearing a cow tail
- This tail was attached to a non-release point on the front of the PFD
- The cow tail was loose enough to be snagged
- Had a strong team of paddlers around with them

Both paddlers ended up in the water – one a capsize and one a deliberate swim. With these paddlers in the water and having a cow tail round them. Both became snagged and this held each of them in the water. While both had strong teams available who managed after some time to free them both unfortunately died.

Lessons Learnt

The wearing of a cow tail for paddlers should be under consideration. They can create a snag hazard especially when swimming.

If they are to be worn, then:

- they must be kept as snug to the body of the PFD when not in use
 - If they are hanging loose they are more likely to catch. Some PFDs have a pocket at the side to keep them tidy and clean. If you are using a stretchy material, then consideration to changing if it loses its stretch.
- the karabiner must be attached to a quick release point on the front of the PFD
 - The front of PFDs has different options of where to attach the karabiner. It must be quick releasable if the cow tail becomes snagged. There are split D-rings, poppers or

cam buckles designed to come off / undone if under pressure. **DON'T** attach to the shoulder strap or something that is not releasable.

If paddling as a team there is usually no need for someone to be wearing a cow tail for bank or in-water rescue. Your team members can clip the throwline directly onto the harness via a karabiner. These are generally slower time systems and therefore time to set this up.

If one is needed, then it can be carried in the PFD pocket and taken out and added for when it is needed.

Training Requirements

The importance of going on a recognised training course cannot be under estimated. These courses are crucial for all white water paddlers. British Canoeing run recognised White Water Safety & Rescue Training for all white water paddlers –

<https://www.britishcanoeingawarding.org.uk/white-water-safety-rescue/>

<https://www.britishcanoeingawarding.org.uk/advanced-white-water-safety-rescue/>

These courses will cover:

- How to thread your harness
- When to attach a rope / cow tail for bank or in water rescue
- Correct attachment points
- How to rescue entrapped paddlers

It is good practice for clubs and paddling teams to practice skills to help each other. Formal training courses are great for taking time to get, learn and practice skills. We must however, practice these so that we are sure we can use them.

Threading a Chest Harness

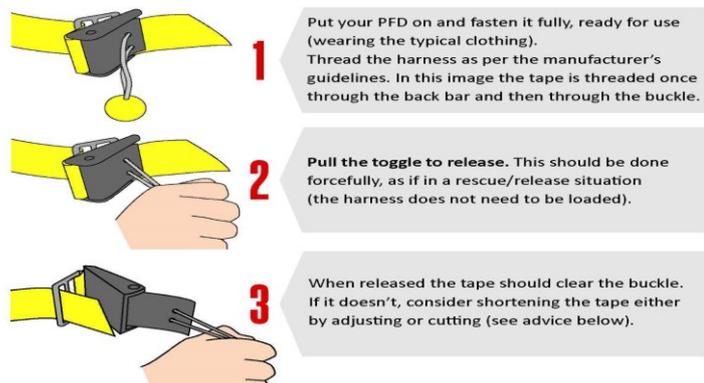
The following infographic gives an indication of threading the chest harness and highlights the research that has been undertaken.

Manufacturers will have guidance on the use of the harness stitched onto it.

IMPORTANT: Please ensure you always follow the manufacturers guidelines

IS YOUR PFD TAPE THE RIGHT LENGTH?

Research has shown that 1 in 4 incorrectly adjusted harnesses fail to operate as anticipated*. This research has also determined that there is an optimum way of adjusting and operating the quick release that gives over 95% effectiveness. To check if your tape is the optimum length go through the following steps.



Manufacturers usually provide a generous amount of tape, enough to fit all shapes and sizes. The expectation is that the tape will be shortened either by adjusting or cutting. If cutting the tape, run through the steps above and then mark the tape at the point at which it should be cut. Rethread the harness to check that there is enough tape to run comfortably through the buckle (see fig. 1). Refer to the manufacturer's guidelines on how to cut the tape.

* Onions, C., & Collins, L. (2013). A review of quick release harness performance in water rescue. International Journal of Emergency Services. Volume 2, Issue 2
Collins, L., & Onions, C. (2014). Improving the performance of the Quick release rescue harness. Journal of Search and Rescue. Volume 1, Issue 3

Cow Tail

An example of a cow tail



Attachment for CowTail

Split D-ring – This has a split in it such as if the cow tail gets snagged it will break free. Cow tail held snug against the PFD.



END