



ClaviBrace™

ClaviBrace™ is a new device for collarbone fractures created in partnership with Queens Medical Centre (QMC) to reduce pain and accelerate healing time.

Collarbone fractures are extremely common and very painful injuries. Sometimes the broken bone can press on the brachial plexus nerves located behind it and patients can experience weakness and pins and needles in the arm and hand for up to four weeks.

Collarbone fractures are either plated, which involves longer healing time, or externally braced, supported with a sling or a Figure-of-8 brace. In order for this brace to hold the shoulders back to recreate the length of the collarbone and allow it to heal, it loops under the armpits and often presses up onto the axillary nerve. The last study into the external treatment of collarbone fractures was carried out in 1987 on a Figure-of-8 brace and showed it had no benefit over a simple sling.



ClaviBrace™ brings the shoulders back into alignment to reduce the fracture, with individually adjustable straps to maintain a stable frame whilst taking the strain off the collarbone. The axillary nerve is protected due to special shoulder pads applied to the front of the shoulders. The device can be further customised by adjusting the chest strap. The wide belt around the trunk helps to keep the brace in a stable position.

The potential of the ClaviBrace™ is demonstrated by the case study of a county-level 15 year-old rugby player admitted to QMC following a complicated collarbone fracture. Instead of plating the break to alleviate the nerve pressure, a prototype of ClaviBrace™ was applied and the patient's pins and needles disappeared almost straight away. One week later, an x-ray showed improved alignment of the bone that had already started to heal and the patient was back in school the following week.



Following promising early results, a patent has been applied for and ClaviBrace™ is about to undergo clinical trials at QMC to demonstrate its efficacy.