

# Case Study - 'Non-invasive Fracture Treatment'

## Services offered by Culzean



## Client

Our client, a University spin-off which was founded in 2004 and incorporated in 2006 has successfully incubated new technologies and brought them from the bench-to-bedside by carrying out cutting edge in-house research and extensive multinational research collaborations.

The goal of our client is to provide innovative, high quality medical devices for use in orthopaedic and trauma surgery. Their first generation products utilise patented platform technology to develop devices focusing on fracture treatment.

## The Project

Our client required a fabric that could be used as an interface between their revolutionary new device and a patient's limb. The fabric was required to provide cushioning and ventilation while also being soft and non-irritating to human skin.

## The Textile Solution

Culzean developed a 3 Dimensional warp knitted spacer fabric that was knitted-to-width, at a width of 60mm. The structure of the spacer fabric allowed ventilation through the fabric to remove perspiration, while also providing cushioning between the device and the patient.

The fabric was specifically knitted-to-width rather than being cut to width (from a larger sheet) to prevent any loose yarns or filaments that could irritate the skin.

Culzean also engineered a unique anti-slip surface for the spacer fabric that prevents the fabric moving on the patient's limb.

Since the initial Textile Solution, Culzean continued to work with the client taking the concept from an initial sample to volume manufacture.

