

Appendix I: Design Project Abstract

TFCC Wrist Splint

Product Description:

Design and Development of Wrist Device for Triangular Fibro-Cartilage Complex (TFCC) Injuries

Abstract:

The triangular fibrocartilage complex (TFCC) is a group of ligaments located on the side of the wrist below the small finger. An injury or tear to TFCC can cause chronic wrist pain. There are a few devices available in the market that provide partial stability for TFCC injuries. The objective of this senior design project is to design, prototype, and test a wrist device that provides both sagittal and frontal plane stability to the ulnar side of the wrist with minimal or no restriction of wrist and forearm motion. The designed device should reduce or abolish pain during pain producing maneuvers. Apart from providing its core function, the device should be low profile, easy to wear, washable, and made of non-elastic, breathable, and recyclable material and fit a wide range of hand sizes for adults.

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