

**ULNAR PRO® -
ANATOMIC FOREARM CRUTCH SHELL**



Problem – Challenge

Demographic changes result in a higher prevalence of aged people. Therefore, degenerative musculoskeletal diseases are an increasing health burden. The number of individuals requiring permanent medical walking aids such as crutches will increase substantially in the near future. Current available crutches are cheap and highly functional. The focus of conventional crutches purely is on function, they are not designed for long term use. In the case of permanent use, forearm crutches can lead to skin bruises, pain and possibly nerve compression over the ulna bone or elbow of the forearm. This is due to the prominent anatomic position of the ulna bone, which has no surrounding soft tissue cushioning. Subsequently, a decrease of mobility, a higher risk of falling and a reduced quality of life is reported by the patients.

Solution

The University Hospital Basel developed walking aids that allow long term use of crutches. The patented “Ulnar protection” (UlnarPro®) technology preserves the ulnar bone, leading to less bruises and less pain. This is accomplished by vertical recess in the cuff that is designed to receive the ulna bone of the forearm. This minimizes the pressure that acts on the ulna bone by the cuff and redirects it to other sites with more muscle and connective tissue, as evidenced by clinical trials.

The UlnarPro® technology is licensed to Rebotec, the European market leader for crutches. The UlnarPro® cuff sold by Rebotec can easily be fitted on any underarm crutch

