

DEVELOPMENT OF SILK FIBROIN AS A BIOMATERIAL FOR WOUND HEALING

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ABSTRACT

The Medical textiles sector of technical textiles was one of the fastest developing industries. Today, many special fibres both natural and synthetic including alginate, chitosan, super absorbent fibres, polylactic acid fibres etc. are used as composition for medical textiles. Most of these fibres have properties such as antiseptic, antimicrobial, anti-inflammatory, astringent, ability to accelerate collagen formation and potential for drug delivery which help in early wound healing and hygiene maintenance. For a wound to heal in time, it is essential for the active components of a wound dressing to reach the wound area. In this study, a less explored material i.e. Silk Fibroin was used to prepare a drug delivery matrix by making a solution with Calcium-alcohol.

KEYWORDS: Medical textiles, Technical textiles, Collagen formation, Silk Fibroin & Drug delivery matrix

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