

## **The Collagen Growth Effects of *B. mori* Fibroin Blended Spongy Sheets on Wound Healing in Rats**

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The collagen growth effects of *B. mori* fibroin blended sponge sheets on wound healing in rats were investigated. Also, its some of physicochemical properties and morphology with *B. mori* fibroin blended spongy sheets were investigated, too. We excised the skin of a rat, including the dermis, approximately 2 x 2 cm in size. The wound was covered with *B. mori* fibroin blended spongy sheets. The spongy sheets absorbed the exudate, and gained flexibility and softness. Histopathological inspection of the wound 12 days later showed the increase of a vascular ingrowth and collagen contents. Also inflammatory cells were absent, too. Regeneration of the skin around the wound was faster than that of the control, showing that wound healing was accelerated in the order of PVA / Chitosan / Fibroin (PCF)-blended sponge > Chitosan / Fibroin (CF)-blended sponge > Fibroin (F) sponge > PVA / Chitosan-blended sponge (PC) > Chitosan (C) sponge.