

# Accelerated Wound Healing via Enhanced Collagen Synthesis

**R**esearchers at the University of South Florida have developed a novel method of accelerating wound healing by stimulating collagen synthesis.

Over 200 million wounds, such as skin ulcers, burns, surgical, and trauma wounds, are reported annually. The most common cause of wounds in the US is fall injury, accounting for over 67 million ER visits annually. Primary considerations involved in wound care include the costs of care, ease of use, quality of life for the patient and pain relief. Balancing these important factors can be frustrating to the care provider, and with the ageing “baby boomers” population and increased life expectancy, the demand for enhanced wound care products and services is expected to increase.

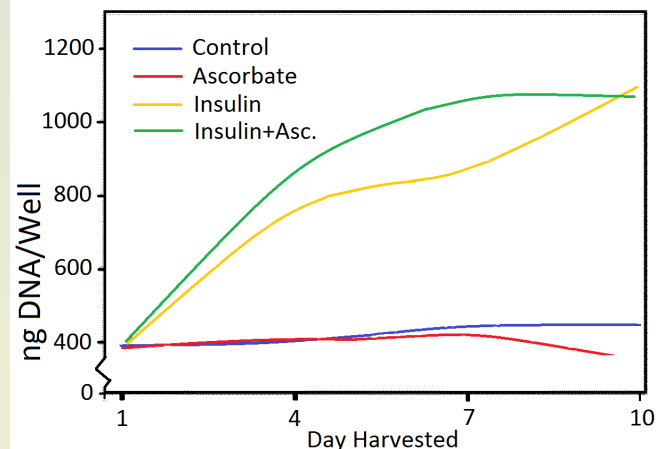
Collagen is a naturally occurring biomaterial that accounts for the majority of the protein structure in the body and is responsible for tensile strength within connective tissues like skin, tendons and ligaments. Introducing collagen to a wound promotes faster wound healing, stops bleeding during and after surgery, and the resulting healed wound is stronger. Furthermore, it has been found that insulin increases the rate of collagen synthesis, which is critical to revascularization and tissue repair after an injury episode.

USF inventors discovered that collagen synthesis in wound healing is increased even further when an optimized combination of insulin and ascorbate is applied. Collagen synthesized using this method is more stable and has the potential to enhance the wound healing process. This invention will be especially useful in the field of wound and surgical care.

## ADVANTAGES:

- **Faster & stronger wound healing**
- **Produces collagen with enhanced stability**
- **Formulation contains natural products with low risk of toxicity**

*Novel Formulation Significantly Boosts the Wound Healing Process*



*Keratocyte Cells (Collagen Producers) Show Enhanced Growth in the Insulin + Ascorbate Medium*

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