

New treatment for chronic wounds using CO₂ lasers

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Chronic wound repair can be a major problem in wound treatment. Recently, several studies have suggested that carbon dioxide (CO₂) laser can be used to improve the healing of chronic wounds. This study investigates the efficacy of laser debridement to treat chronic wounds using a comparison of traditional surgical debridement and ultrapulsed CO₂ laser debridement.

This clinical report, published in *Lasers in Surgery and Medicine* (LSM), the official journal of the American Society for Laser Medicine and Surgery, Inc. (ASLMS), was selected as the July 2020 Editor's Choice.

The study, led by Hong Yan, MD, is titled "Evaluation of the Efficacy of Ultrapulsed CO₂ Laser in Chronic Wounds."

Forty-seven patients with chronic wounds were randomly divided into two groups: traditional sharp instrument debridement versus ultrapulsed CO₂ laser debridement. The wound healing rate and the total time to achieve healing were significantly better in the laser group versus the control group.

"Our study found the ultrapulsed CO₂ [laser](#) can more effectively decrease wound infection rate, promote an increase in wound blood perfusion, and achieve faster wound [healing](#) in the treatment of chronic refractory wounds compared with the traditional sharp instrument/surgical debridement," said Yan.

Hong Yan, MD is director of plastic and burn surgery at the Affiliated Hospital of Southwest Medical University, China. Dr. Yan specializes in scar [plastic surgery](#), complex wound defect repair and reconstruction, severe burn treatment, burn rehabilitation, medical cosmetology, and other aspects of clinical work.

More information: Bo Jiang et al. Evaluation of the Efficacy of Ultrapulsed CO₂ Laser in Chronic Wounds, *Lasers in Surgery and Medicine* (2020). [DOI: 10.1002/lsm.23283](https://doi.org/10.1002/lsm.23283)

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