

## #2 Bilayered living cell therapy as an treatment option in hard to heal atypical chronic wounds

A **chronic wound** is a wound that does not heal in an orderly set of stages and in a predictable amount of time the way most wounds do; wounds that do not heal within three months are often considered chronic.<sup>[1]</sup> Chronic wounds seem to be detained in one or more of the phases of wound healing. For example, chronic wounds often remain in the inflammatory stage for too long.<sup>[2][3]</sup> In acute wounds, there is a precise balance between production and degradation of molecules such as collagen; in chronic wounds this balance is lost and degradation plays too large a role.<sup>[4][5]</sup>

Chronic wounds may never heal or may take years to do so. These wounds cause patients severe emotional and physical stress as well as creating a significant financial burden on patients and the whole healthcare system.<sup>[6]</sup>

It is for this reason that a bilayered cell delivery system is used to promote faster wound healing in 3 separate cases of chronic wounds that are of atypical origins.

Case #1 : a 55 year old female patient, undergoing chemotherapy for breast cancer with a surgical wound dehiscence of 3 months, following foot surgery. Debridement with application of a bilayered cell therapy, with complete wound healing occurring within 4 weeks following the application.

Case #2 : a 40 year old female following a spider bite, with a resulting necrotic ulceration to the lower extremity for duration of 8 months. The wound is debrided with application of a bilayered living cell product which achieved complete wound epithelialization within 4 weeks of application.

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