

VITAMIN E: MIRACLE OR MYTH?

Over the years, vitamin E has been anointed the super-hero of home remedies. Popular culture seems to hold the belief that vitamin E can improve the appearance of or even heal everything from burns to scars to stretch marks. Vitamin E is so widely accepted in the skin care industry that it is a common ingredient in a variety of topical formulas from moisturizers to shaving gels to anti-aging products. When it comes to fading scars, however, there is little evidence to support these beliefs. Over the past several years, numerous clinical studies have failed to prove conclusively that vitamin E can positively impact the appearance of a scar. A large 1986 study published in *The Journal of Burn Care and Rehabilitation* selected some burn victims to apply vitamin E to their scars and others to use a different topical cream. The appearance of the scars in the vitamin E group did not improve.¹ A 1999 University of Miami double-blind study had post-surgery patients apply two different preparations (one with vitamin E and one without) to separate halves of their scars for four weeks. Subsequent evaluation of the scars by patients, investigators and an independent observer showed no cosmetic improvement on either side. In some cases in this study, topical vitamin E actually worsened the cosmetic appearance of scars.² <http://www.ncbi.nlm.nih.gov/pubmed/10417589>

An article entitled "Innovations in Scar Prevention and Management" published in the March 2010 issue of *Dermatology Times* also cites the study, reiterating its author's findings that "Keeping the body's natural healing ability in mind, dermatologists should know that some scar therapies are a waste of time and money. Breaking vitamin E capsules on scars to minimize their appearance, for example, has shown no benefit in studies and can cause allergic reactions."³

Several other studies support these findings. A study entitled "Management of Keloids and Hypertrophic Scars" conducted in August 2009 at West Virginia University concluded that "despite the popularity of over-the-counter herb-based creams, the evidence for their use is mixed, and there is little evidence that vitamin E is helpful."⁴

In a July 2006 article on "Vitamin E for treating children's scars" conducted at the Hospital for Sick Children in Toronto, Ontario Dipen Khoosal and Ran D. Goldman, M.D. stated that "several anecdotal reports have suggested that topical use of vitamin E cream can reduce scar formation. Current evidence from the literature, however, does not support that proposition. In fact, studies report some adverse effects with use of vitamin E. Further research is needed before application of vitamin E cream becomes the standard of care."⁵

1. Jenkins M, Alexander JW, MacMillan BG, et al. Failure of topical steroids and vitamin E to reduce postoperative scar formation following reconstructive surgery. *J Burn Care Rehabil* 1986 Jul-Aug;7(4):309-12.
2. Baumann LS, Spencer J. The effects of topical vitamin E on the cosmetic appearance of scars. *Dermatol Surg* 1999;25:311-315.
3. Spencer J. Innovations in scar prevention, management continue to expand. *Dermatol Times*; 2010 Mar
4. Juckett G. Management of Keloids and Hypertrophic Scars. *Am Fam Physician* - 1-AUG-2009; 80(3): 253-60
5. Khoosal D, Goldman RD. Vitamin E for treating children's scars. Does it help reduce scarring? *Can Fam Physician* 2006 Jul;52:855-6.