

Laser Treatments in Skin Cancer

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Laser therapy can be an effective treatment for certain types of skin cancer. Because of the added precision and the capability to minimize damage to surrounding healthy tissue, it can be a better alternative to traditional surgical techniques. The technology uses highly concentrated beams of light to target and eliminate cancer cells, providing a non-invasive alternative to traditional treatments like surgery.

Laser treatment typically uses carbon dioxide, which works by vaporizing layers of skin tissue, making it an excellent choice for removing some select skin cancers, such as less aggressive forms of basal cell carcinomas and squamous cell carcinomas or precancerous lesions like actinic keratoses. These lesions are generally more localized and less likely to metastasize, making them suitable for targeted treatment. However, laser therapy is not recommended for malignant or more invasive cancers which require a combination of surgery, chemotherapy, and other treatments due to their risk of spreading or metastasizing to other parts of the body.¹

The laser beam works by generating an intense beam of light, which can either destroy the cancerous cells or slowly removes the tissue layer by layer. One major advantage of laser therapy is its precision, which minimizes damage to any healthy tissue surrounding the cancerous cells. This approach helps to also reduce the risk of scarring and may offer better aesthetic results in select cases compared to traditional surgery, particularly in sensitive areas such as the face or neck.² Laser treatments are generally quick and often completed in a single session on an outpatient basis. Additionally, patients usually experience minimal recovery time because it involves less pain and discomfort than traditional surgery, making it an attractive option compared to more invasive alternatives. Laser treatment, however, has its limitations. Beyond not being a suitable treatment for invasive cancers, it may not be suitable for all skin types and tones. Larger lesions may also require multiple sessions.

Laser therapy offers an alternate option for individuals with specific types of skin cancer. Its precision in targeting and destroying cancerous cells while sparing surrounding healthy tissue makes it a better option compared to radiation or traditional surgery. As research progresses, the application and effectiveness of laser therapy in treating skin cancer will continue to broaden, making it an increasingly popular option.

¹ Klein, A., Bäuml, W., Landthaler, M., & Babilas, P. (2011). Laser thermal therapy of benign skin tumours: Review and update. *International Journal of Hyperthermia*, 27(8), 762–770

² Mirza FN, Khatri KA. The use of lasers in the treatment of skin cancer: A review. *J Cosmet Laser Ther*. 2017 Dec;19(8):451-458.