

Trichloroacetic acid (TCA) has been a familiar peeling agent in the medical spa since the early 1980's. Many physicians and clinicians believe that TCA is the gold standard of peeling agents. The product comes in varying strengths, beginning at 7 and 10% and moving up in 5% increments. TCA must be mixed in an aqueous solution to penetrate the skin. Preparation of the peel solution and the subsequent analysis of percentage are complex and important components of the TCA peeling process. Done incorrectly, the percentage will not perform as predicted, creating either a peel that is too deep or one that is too light. Therefore the TCA product that you buy must come from a reputable source that is familiar with mixing and preparing peeling solutions. The process and engineering of the blend for specific use is as important as the application of the chemical.

The mechanism of TCA injury is protein coagulated in the dermis and epidermis. This mechanism is of course, quite different than that of alpha hydroxyl acid (AHA) or Jessner's solution. The benefits of TCA are many. But among the most notable is the ability to adjust the depth to fit the skin problem. For example, for patients who require only epidermal improvement, a single application of TCA peel 10% to 15% will be effective. On the other hand, if the problems are in the papillary dermis, a stronger solution or more application passes can be applied (including DERModlaity's 10/10 and Long Island Ice Tea Peel). A word of caution should be noted at this time: *the number of coats or volume of solution will increase the depth of the peel*. The percentage of solution you are using does not matter; the more coats you put on, the deeper the peel will be. Why? Remember the mechanism of action: TCA coagulates the dermal and epidermal proteins. Simply stated, the more solution that is applied, the deeper it will go looking for protein to neutralize itself (figure cell-1). Other benefits that TCA brings include an improvement for all skin types (we will later discuss necessary safety measures for hyper pigmented skin) and good results with a single application.

As with all other peeling agents, TCA peels must be examined carefully. The process of patient consultations and selection, recognizing the proper indications and contraindications, the peeling process, and the aftercare all affect the patient's outcome. Given that TCA can dramatically affect the patient's appearance in one treatment, a lot of interest in the treatment can be found.

Figure cell-1



