PIPS Tips

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The Scoop on Scars

If plastic surgeons have developed a reputation for any expertise, it certainly is in the area of scar management. Just about every medical/surgical specialist defers to the plastic surgeon the treatment of "problem" scars. Because of the favorable "press" which plastic surgeons enjoy relative to the treatment of scars, many people assume, mistakenly unfortunately, that plastic surgeons possess the ability to "erase" scars or, better yet, to undertake surgery in a way which leaves no trace of a scar.

All of us when subject to an injury, either accidental or intentional, which penetrates our skin will form a scar in response to that injury. Indeed, every tissue or organ of which the human body is composed will form scar in response to injury. For example, a myocardial infarction, more commonly known as a "heart attack", results in destruction of heart muscle and replacement of that damaged muscle by scar which really is no different from a scar of the skin. A scar, once formed, regardless of where it may form, is permanent. Over time it may undergo changes in its morphology, or appearance, but it will never disappear.

What then can plastic surgeons offer a scarred individual as a means of minimizing the appearance of his/her scar(s)? The answer to that question begins with an understanding of what constitutes an ideal scar, at least those which involve skin. First, an ideal scar is one whose color approximates that of the surrounding skin. Keep in mind that all scars when "new" (or, as plastic surgeons like to say, "immature") are pink to red and, in fact, may become pinker/redder before they lighten. An ideal scar ultimately will assume a color which is comparable to that of the surrounding skin and, in many cases, may even tan in response to appropriate light stimulation. Second, an ideal scar is one whose contour is comparable to that of the surrounding skin, that is neither elevated nor depressed, and consequently is not distinguishable from surrounding skin by ordinary touch. Third, an ideal scar is one which is as narrow as the skin of the area it occupies will allow (keep in mind that scars of certain areas of the body like the face usually tend to be narrower than do scars of other areas of the body like the trunk). Fourth, an ideal scar follows the "grain" of the skin it occupies and/or parallels normal skin creases and folds. For example, a scar which runs horizontally along the forehead, parallel to natural forehead creases, will be less obvious than will a scar which crosses those creases. Finally, the shape of a scar may affect its visibility. A linear scar on a smooth surface (the cheek, for example) may be more obvious than one which is curvaceous or even irregular in shape and consequently more difficult to "separate" visually from that smooth surface.

Consequently, when a plastic surgeon is faced with a scar in need of improvement, he/she determines what, if any, of the various "tricks" of his/her trade can be employed to improve that scar. Those "tricks" can be categorized as: (1) procedures designed to alter the qualities of an existing scar in order that it may assume more closely those of an ideal scar and (2) procedures designed to eliminate, by surgical removal, an existing scar and create a new "wound" which hopefully will go on to form an ideal scar.

Alteration of a scar includes tattooing to alter its color and resurfacing of the scar or surrounding skin, in order to improve contour relationships between the two. Keep in mind that any pigments introduced into a scar in order to alter its color, like pigments employed in "cosmetic" tattoos, will fade with time and consequently will not produce a permanent alteration in the scar's color. Resurfacing a scar or surrounding skin generally involves a compressed air or electrically driven sander, known as a dermabrader, or a laser. The first mechanically sands that with which it comes in contact whereas the second vaporizes (*a la Star Trek*) that at which it is aimed.

A more definitive way to deal with unsatisfactory scars, though, amounts to starting from scratch. In other words, surgical removal of the scar accompanied by mobilization of the skin surrounding the wound thus created and a reapproximation of the wound edges in a way which hopefully produces a narrower scar, one of a contour comparable to that of the surrounding skin and one which perhaps assumes a different direction and/or shape from that which it replaced, in order to avail itself of skin creases and folds which serve as "camouflage". Contrary to popular belief, a skin graft is not an ideal replacement for a scar owing to the differences in color, contour, etc. between it and surrounding skin. When removal of a scar produces a surgical defect which cannot be "closed" comfortably by the approximation of surrounding skin, then a technique known as "tissue expansion" may be employed (generally well in advance of the removal of the aforementioned scar) to expand or stretch surrounding skin in order to facilitate such "closure".

The best scar still is no scar. Plastic surgeons continually seek ways by which surgical procedures can be undertaken through smaller and smaller incisions or through incisions which are distant from the operative field and consequently hidden in natural skin creases and folds. The current use of endoscopes (similar to arthroscopes), still new, is particularly exciting because it affords the plastic surgeon the opportunity to undertake surgical procedures, even relatively major surgical procedures, through remarkably tiny incisions.