

Shaving for Success

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Shaving is a daily activity practiced by both men and women. Many dermatologic conditions are related to problems with unwanted hair growth, necessitating some form of hair removal. Perhaps the most common method of removing hair is shaving. While shaving can exacerbate eczema, pseudofolliculitis barbae, folliculitis, impetigo, verruca plana, and sensitive skin, most dermatologists know relatively little about this grooming practice. Even medical literature has little to offer on the pitfalls of incorrect shaving techniques. This article investigates common shaving practices and offers practical tips to optimize hair removal while minimizing dermatologic complications. The topics for consideration are razor selection, razor and blade design, blade care, selecting shaving products, shaving technique, spread of infection, and shaving of special skin areas.

Razor Selection

Razor selection is perhaps one of the most important considerations for achieving excellent results in hair removal. Without good tools, effective results cannot be obtained. Many people with dermatologic problems complain that shaving causes pain, discomfort, and razor burn. When asked what type of razor they normally select, many people will state that they buy a big bag of disposable razors for under \$5. In the area of razor purchase, you get what you pay for. Cheap razors do not provide the best hair removal.

Dermatologic patients with skin disease should consider paying a premium for their razors to minimize problems. This will be money well spent, considering the cost of medication and a visit to a physician. A patient with special skin needs should not use a disposable razor for several reasons. First, disposable razors are made out of a thin plastic shell and are not weighted. A good

razor with replaceable cartridge blades will be weighted in the handle to insure that the blades strike the skin at the proper angle. When the razor is held in the hand, the head angles the blade to meet the skin for optimal hair removal, minimizing skin removal. Second, disposable razors generally do not have high-quality, laser-cut, spring-mounted blades. These 2 advances in razor design lead to less skin irritation, which will be discussed further in this article.

In summary, if the razor blade is not well cut and not well mounted in the handle, a good shave cannot be obtained. Patients should be encouraged to carefully select shaving equipment.

Razor and Blade Design

Selecting a well-designed razor with a state-of-the-art blade is also important. The first blades to enter the market were single edged. These old-fashioned blades are used by some dermatologists to remove seborrheic keratoses and nevi when longitudinally broken. While these blades may function well as a scalpel, they are not a good choice for hair removal. The double-edged blade replaced the single-edged blade when it was recognized that the first blade lifts the hair from the skin's surface and is cut by the second blade. This lifting of the hair increases the chances for a close shave while minimizing the unnecessary removal of skin, a condition commonly known as razor burn.

The next development in razor design was the addition of a glide strip. A glide strip is placed on the leading edge of the blade, with the intention to reduce friction when it is dragged across the skin, leading to fewer problems when shaving over curved surfaces. The glide strip was later loaded with skin conditioning agents, such as aloe, to provide additional benefits. The loaded glide strip was problematic in some of the early razor designs because the moisturizer became stringy and clogged the blades. This problem has been overcome by the use of a thinner, more flexible glide strip.

The most significant development in razor design has been the development of a multiblade razor with 5 blades. The hair is lifted and successively cut by each of

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the blades to produce a very close shave without undue pressure on the skin, which can lead to razor burn. The multiblade razor produces a close shave without unnecessary pressure, causing less razor burn, less skin irritation, and fewer skin cuts. A further reduction in pressure can be created by using a vibrating razor and dragging it over the skin's surface. This is the rationale behind the new battery-operated razors.

The most expensive razors also have laser-cut blades with spring mounts, in addition to multiple blades. The laser-cut blades have a more accurate edge with fewer defects, providing less razor burn and a closer shave. The springs allow the blades to rotate over the skin's surface, reducing cuts and providing a close shave over curved surfaces such as the chin or the knees. Even though these blades come at a higher cost that may deter some patients, the extra expense is well justified. There is no substitute for a blade that is designed for optimal performance.

Blade Care

An expensive blade requires excellent care to deliver a superior shave during the blade's lifetime. It is important to counsel patients on good blade care to prevent damage that compromises the quality of the shave. Razor blades should not be stored in a wet environment such as the shower. They should be allowed to dry between shaves and be kept in a dry location such as the countertop or the drawer. Prior to drying, the blades should be thoroughly rinsed of hair and skin debris to prevent the material from sticking to the blade and compromising the sharp edge.

It is also important not to drop the blade or bang it into other objects. Dropping the blade creates a dull spot on the edge. There is a saying in razor blade technology that the patient always shaves with the duller portion of the blade. This means that razor burn results from the damaged blade areas, not the sharp blade areas. If the blade is only 5% damaged and 95% undamaged, razor burn will still occur even though the majority of the blade is still in optimal condition. Most blades are designed to be used for 5 to 7 shaves, meaning that the blade should be replaced at least once a week.

Selecting Shaving Products

A good, well-maintained blade is part of the equation for a superior shave, but shaving products are equally important because they create the interface between the blade and the skin. A good interface sets the stage for a good shave and a poor interface sets the stage for a poor shave. Many patients feel that shaving cream products are extraneous and prefer to use nothing or use other items

handy in the shower such as bar soap, shampoo, or hair conditioner. It is important to remember that all personal care products are carefully designed for their intended purpose and are not well suited for any other use. Bar soap, shampoo, and hair conditioner leave a film on the blade, hastening dulling, and do not optimally alleviate friction between the blade and the skin. Shaving products are specially designed for this purpose.

There are many shaving products on the market, including old-fashioned soaps applied with a brush, products that heat up when rubbed on the face, and some that are dispensed as a foam; however, the best products are gels dispensed from an aerosol can that turn into foam when rubbed on the face. The latter are known as postfoaming shave gels and are the best choice for persons with shaving challenges because they entrain water better than any other type of shaving product. Entraining water is the event that occurs when the hair shaft becomes hydrated. Hydration is the first step in preparing the hair for cutting because the keratin softens and can be cut with less force. A strand of dry hair is likened to the diameter of a copper wire, whereas a strand of wet hair is likened to the diameter of an aluminum wire. Aluminum is much easier to cut than copper. These metals are used to model the physical dynamics of shaving.

The proper way to prepare the skin for shaving is by washing the face and then thoroughly moistening the face with lukewarm water. Moistening the face places a thin layer of water over the hair and skin. Next, the shave gel should be dispensed from the can and placed in the palm. The palms should be rubbed together to generate a rich foam, which is generously applied to the premoistened face. The shave gel should remain on the face for 3 to 4 minutes before commencing shaving. This allows time for more water to enter the hair shaft. At this point, the hair and skin are ready for shaving.

Shaving Technique

Once the skin has been properly prepared, it is necessary to execute the proper shaving technique. The blade should gently glide over the skin's surface with minimal pressure. The quality of a shave is measured by the ratio of hair removed to the amount of skin removed. If the ratio is high, the shave is good. Conversely, if the ratio is low, the shave is poor. The blade should be dragged over each area for shaving only once. If the blade is rubbed multiple times over the same area, the chance for razor burn increases. Any areas that are not shaved as closely as desired should be left for shaving on the following day.

Shaving should occur in parallel strokes, even though the hair may grow in many different directions. The

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newer multiblade razors are excellent for shaving hairs that exit the skin at different angles. It is also important to rinse the blade after each stroke to remove hair, skin, and shave gel debris.

Spread of Infection

A common dermatologic problem related to shaving is the spread of disease. Bacterial diseases, such as impetigo and methicillin-resistant *Staphylococcus aureus*, can be spread on a razor blade in addition to viral diseases such as verruca and *Molluscum contagiosum*. A good razor and shave gel can help in minimizing skin trauma and the opportunity for infection, but it may be necessary for shaving to be discontinued in areas of infection until treatment is complete.

Razor blades can pass bacterial and viral infection to various sites on an individual patient or between family members if they use the same razor. It is best not to share razors for hygiene reasons but also for optimal blade performance. Blades that are used to shave a man's face experience wear in a different manner than blades used to shave a woman's legs. Different patterns of blade wear can lead to increased razor burn.

Allowing the razor to dry between uses can minimize the spread of infection. Soaking the razor head and blade in rubbing alcohol for one minute can also decrease the spread of infection, but can decrease the life of the razor blade as well. If recurrent infection is a problem, patients can let the razor head sit in a jar with 2 in of isopropyl alcohol for 60 seconds, remove, and then allow to dry.

Shaving Special Skin Areas

Special skin areas, such as a woman's underarms and bikini area, deserve special mention. The underarms are unique in that they are concave, instead of convex, like most other shaved body areas. Likewise, the bikini area may be difficult to shave because of tight concave areas that the razor must reach. There are razors designed for male and female use. Razors for men are designed to shave the small curved areas of the face, whereas razors for women are designed to shave the straight, long

10 Tips for a Successful Shave

- Select a multiblade razor with replaceable blades and a glide strip
- Shave with minimal pressure
- Store the razor away from the shower in a dry location
- Never shave with a damaged blade
- Change the blade weekly
- Purchase a postfoaming shave gel
- Always clean the area prior to shaving
- Wet the area with lukewarm water prior to shaving
- Leave the shave gel on the area for 3–4 min before shaving
- Shave daily

surfaces of the legs and not necessarily the armpits and the groin. It is important to pick a razor that fits nicely in the hand of the user. For patients with shaving challenges, it is well worth the money to buy several different handles with a few blades to see which one provides the best shave. Just like many people have a favorite pen, it is also necessary to find that one favorite razor.

Summary

This article has reviewed the finer points of shaving from blade design to shave gel selection to shaving technique. These points are summarized in the Table. Shaving is a daily event for both male and female patients. Understanding the physics behind blade and razor design, accompanied by the physiology of hair and skin, is necessary to achieve the optimal shave. It is hoped that this discussion has provided ideas for dermatologists to share with patients who are in need of assistance. ■