Let's face it-for a person with curly, coarse facial hair who is prone to razor bumps, shaving is no easy feat. Deciding how, when, and what type of razor to use can be a frustrating experience. And for dermatologists, providing science-based guidance to patients seeking relief can be just as frustrating. But thanks to the scientists and research partners at Gillette, it seems shaving doesn't have to be so irritating.

SHAVING AND PSEUDOFOLICULITIS BARBAE (PFB) THE RAZOR MAKES THE DIFFERENCE



PFB A CLOSER LOOK

It's no mystery why shaving can be so difficult for some men. Pseudofolliculitis barbae (PFB), also referred to as razor bumps, is an inflammatory condition of the skin that can affect the face or other shaven areas of the body. PFB can appear as papules with occasional pustules or hypertrophic scarring¹ Although it is most common in men with curved hair follicles and shafts resulting in tightly curved, coarse hair² – most notably men of African ancestry – and can occur in 45-83 percent³ of this population, the condition can also affect men of other ethnicities. Research has shown that some men may be at higher risk due to genetic factors that makes the cells next to the hair shaft more susceptible to penetration by the cut hair.^{4,5}

Let's take a closer look at PFB and what's going on inside the skin. One type of ingrown hair growth that can happen in people with PFB is called extrafollicular penetration. This occurs when hairs grow out of the follicle but then curve and regrow back toward the skin. In this case, hair penetrates the epidermal and dermal layers of the skin which initiate a foreign body reaction that result in the papules and pustules that embody PFB – also known as razor bumps.



Extrafollicular penetration

The other kind of ingrown hair is transfollicular penetration. This occurs when a razor moving over the skin causes hair to be stretched from its follicle and cut too short. Now below the surface, the hair retracts, curves, and pierces the follicular wall – generating an inflammatory reaction.

The inflammation from both kinds of ingrown hair can be further traumatized during subsequent shaving, leading to pain during shaving, or pain, itching, and stinging, immediately after shavina

that may occur in localized areas or diffusely on the skin.

Transfollicular penetration

And for patients with PFB, the impact of this skin condition can be greater than just pain and discomfort. The time and cost associated with caring for and treating the condition can be a burden, but PFB may take an emotional toll on patients due to where it manifests most—the face. PFB's high visibility may negatively affect self-image and a patient's confidence to in engage in social situations.

SHAVING WITH PFB - FRIEND OR FOE?

While shaving is clearly associated with PFB, the literature carries a number of claims about its role that are not always supported by robust clinical evidence. Most notable is the suggestion that daily shaving exacerbates PFB. A recent review refuted the previous research – and declared two unexpected conclusions:

- 1. That reduced frequency of shaving does not necessarily help in the management of PFB.
- 2. Daily shaving may actually be beneficial in reducing razor bumps¹

The data also showed that multiplade razors do not exacerbate the risk or severity of the condition¹, and that a good skin regimen prior to and after shaving, including skin preparation and moisturization, are important in the overall management of PFB.





Specifically designed for men with razor bumps, the SkinGuard razor technology puts minimal stress on the hair follicle to reduce the tug and pull effect that can cause irritation and inflammation. With a bridge feature that separates two low cutting force blades, the SkinGuard absorbs force from the hand to reduce blade pressure on the skin. This SkinGuard bridge further helps create a more even shaving plane and keeps the blades slightly away from the skin surface to minimize blade interaction with skin. The two low cutting force blades help reduce the amount that the hair is pulled from the follicle and as a result the hair is left cut to the level of the skin surface.

SKINGUARD TECHNOLOGY

between the blades to minimize pressure on the blades, so they press less on sensitive skin

2'LOW CUTTING FORCE' BLADES

To minimize the risk of stimulating the nerves and triggering an irritation response. Hair is only pulled and cut up to 2 times in each shaving stroke

> LUBRICATION **BEFORE AND AFTER** THE BLADES to minimize friction

CLINICAL STUDY VALIDATES TECHNOLOGY: TOPLINE DATA HIGHLIGHTS

Gillette recently conducted an investigator blinded clinical study in men (n=20) age 20-60 years, that had a minimum of a two year history of razor bumps (mild to moderate). The subjects in the clinical study were asked to shave daily (>5 times per week) over the course of 12 weeks with their regular shave preparation products using the SkinGuard razor. The subjects were evaluated at baseline, and at weeks 4, 8, and 12. Evaluations included quantitative lesion counts by trained clinicians, an Investigator Global Severity Assessment (IGA) and a subjective Quality of Life questionnaire (QoL).

The IGA measures disease severity on a scale of 0 to 5 (clear to very severe) ranking the disease severity of both inflammatory and non-inflammatory lesions. The QoL assessment tool is a questionnaire that is paired with clinical endpoints in order to evaluate the subjective impact of a treatment. The QoL tool assessed thoughts and feelings before, during, and after the shave, and how the shaving experience impacted the subject's day or life. Questions were based on a 7 point scale, from 'strongly agree' to 'strongly disagree'. All answers were converted to scores (7 for strongly agree to 1 for strongly disagree) for statistical comparison.

Per subject	Baseline	4 Weeks	8 Weeks	12 Weeks
PAPULES, % (Mean)	19.1 ± 10.4	12.8 ± 9	6.0 ± 4.6	5.7 ± 6.5
PUSTULES, % (Mean)	0.2 ± 0.5	0.3 ± 1.1	0.0 ± 0.2	0.0 ± 0.0
% Reduction (p value)		20.3	57.0	60

Over the course of the 12-week study, from baseline there was a significant improvement in the reduction of razor bumps and overall quality of life, including:

60% REDUCTION

in incidence of papules at 12 weeks, with meaningful results demonstrated at four (20%) and eight weeks (57%)

SIGNIFICANTLY IMPROVED

skin's appearance at 12 weeks, based on IGA – tool for evaluating severity in clinical trials. Continuous improvement was shown from 2.5 at baseline to just over 1 at 12 weeks (graded on a scale of 0-5 (clear to very severe)

SIGNIFICANT IMPROVEMENT

of Quality of Life, as reported from an assessment related to self-confidence and social interactions (p < 0.02), including feeling more attractive, confident, energetic and comfortable being close to others after shaving with the SkinGuard razor for 12 weerks.



PFB AND SHAVING - NO LONGER TOO CLOSE FOR COMFORT

Although previous studies with razors and men suffering from PFB have only been able to demonstrate that frequency of shaving and shaving with multiblade razors as part of a regimen does not exacerbate risk and severity of PFB, for the first time, the story of shaving with PFB is changing. In fact, current clinical evidence demonstrates **that shaving with a razor designed to address PFB risk factors can significantly reduce the incidence of razor bumps and improve self-confidence. Today, for men with PFB the razor can make all the difference. And that razor is the Gillette SkinGuard.**

REFERENCES

- 1 Gray J, McMichael AJ. Pseudofolliculitis barbae: understanding the condition and the role of facial grooming. Int J Cosmet Sci. 2016;38:24-27.
- 2 Bradford-Love P, Kundu RV, editors. Skin of Color Clinical Cases. Clinical cases in skin of color medical, oncological and hair disorders, and cosmetic dermatology First edition, Springer, 2015.
- 3 McMichael AJ. Hair and scalp disorders in ethnic populations. Dermatol Clin. 2003;21:629-644.
- 4 Winter H, Schissel D, Parry D, Smith TA, Liovic M, Birgitte Lane, E, et al. An unusual Ala12Thr polymorphism in the 1A α helical segment of the companion layer-specific keratin K6hf: Evidence for a Risk Factor in the Etiology of the Common Hair Disorder Pseudofolliculitis Barbae, J Invest Dermatol. 2004;122:652-657.
- 5 Wang Z, Wong P, Langbein L, Schweizer J, Coulombe PA: Type II epithelial keratin 6hf (K6hf) is expressed in the companion layer, matrix, and medulla in anagen-stage hair follicles. J Invest Dermatol 2003;121:1276–1282.