

# ASSESSMENT OF THE EFFICACY OF A SONIC DEVICE AND PEDICURE REGIMEN THROUGH CLINICAL MEASURES OF SKIN ROUGHNESS AND SMOOTHNESS

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## INTRODUCTION

Dry, rough skin on the soles and heel of feet are a common problem; often worsening in winter and in areas of low humidity. The condition is often difficult to treat since moisturizers cannot effectively penetrate the thick, dry skin without additional exfoliation and hydration.

Pacific Bioscience Laboratories, Inc. has developed a new Sonic Pedi Kit consisting of a novel Sonic Pedi Handle, a Pedi Brush head, Pedi Smoothing Disc, an exfoliating scrub (Pedi Buff), an Alpha Hydroxy Acid (AHA) peel (Pedi Boost), and a moisturizing balm (Pedi Balm). The Sonic Pedi Kit is created to target hard, dry, cracked skin on the feet. The Pedi Smoothing disc is a textured stainless steel disc to exfoliate rough, dry areas. The sonic brush head has a combination of short rigid filaments and longer flexible filaments to exfoliate and buff dry, hard skin. The AHA peel combines lactic and glycolic acid to help loosen, remove, and slough off dead skin cells. The scrub contains a blend of lactic acid, apricot seeds, a tri-fruit complex, and small particulates to help exfoliate rough dead skin and refine skin texture. The moisturizing balm contains a gentle blend of Shea butter, honey, and apricot oil to soften and hydrate dry rough skin.

### Objectives

To assess the efficacy of the new Sonic Pedi Kit on smoothing rough, dry feet.



## MATERIALS & METHODS

34 subjects were enrolled in a study evaluating clinical measures of skin smoothness. This was a 4-week/3-visit, randomized study comparing a manual pedi-brush treatment (randomized to 1 foot) to the Sonic Pedi kit (Sonic Pedi handle, Pedi brush head, Pedi Buff, Pedi Boost, Pedi Balm, and Pedi Smoothing Disc; randomized to the opposite foot).

Participants were asked to use the manual brush daily with their usual shower gel/soap on one foot and use the Pedi handle, Pedi Brush head, Buff and Balm daily and the Pedi Smoothing Disc and Pedi Boost twice per week on the other foot.

Participants used the products during their first visit. They continued using the products at home and during their subsequent 2 and 4 week clinic visits.

At each visit, before and after photographs (Vectra 3D, Vivosight, studio photos) and roughness/smoothness measurements (Visioscan) were taken. Efficacy was assessed by calculating overall smoothness (volume), maximum surface roughness (M R2), SELS (Surface Evaluation of Living Skin) parameters of SER (roughness) and SEsm (wrinkle smoothness), and other measurements of surface roughness (M R1, M R3, M R4, and M R5) using Visioscan® VC 98 and the SELS software, Courage+Khazaka electronic GmbH, Germany.

## INCLUSION CRITERIA

- Women between the ages of 18-70 years
- Dry skin on feet (especially heels)
- No pedicure within the last two months
- Available for three in-office study visits

## RESULTS

The use of the Sonic Pedi Kit resulted in significantly smoother feet than the manual brush after the first use and following 2 and 4 weeks of use ( $p < 0.01$  at all the time points). After the first use, the feet treated with the Pedi Kit were 3.8 times smoother than the manual side. Following 4 weeks of use, the feet randomized to the Pedi Kit were, on average, 10.1 times smoother than the feet treated with the manual brush (Figure 1). Likewise, there was a statistically significantly greater reduction in maximum roughness (M R2) for the sonic kit (79.61) versus only 39.77 for the manual treatment ( $p < 0.01$ ).

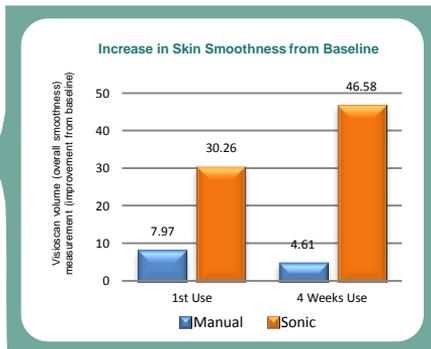


Figure 1. Increase in measured smoothness with the Pedi Kit compared to a Manual Brush following first use and after 4 weeks of use.



Figure 2. Photographs of a subjects' foot before (left) and after (right) 4 weeks of using the Sonic Pedi Kit.

## CONCLUSION

After 4 weeks of using the pedi kit, the Sonic Pedi Kit showed significant improvements in all smoothness/roughness parameters with visible results. The Sonic Pedi Kit outperformed the manual pedi kit for all parameters.

## REFERENCES

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« The authors declare no conflict of interest »