

**Photo vignette**

**Worn down nails after acrylic nail removal**

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**Abstract**

Worn-down nail syndrome is a nail disorder characterized by thinning of the distal nail plate caused by repetitive chemical or mechanical trauma. We present a previously undescribed source of worn-down nail syndrome caused by trauma from nail filing after acrylic nail removal.



**Introduction**

Worn-down nail syndrome is a nail disorder characterized by thinning of the distal nail plate caused by repetitive chemical or mechanical trauma. It was first described by Baran and Moulin[1] as “bidet nails” in three unrelated women overly preoccupied with genital hygiene who presented with injuries to the 3 middle fingers after repeated trauma against a porcelain bidet.

**Case synopsis**

A 24-year old woman presented with a 12-month history of brittle fingernails. Clinical examination of the bilateral hands revealed triangular thinning and mild erythema of the distal nail plate on all five digits (Figure 1). Dermoscopy of the fingernail showed dilated capillaries within the thinned areas (Figure 2). Upon further questioning, the patient admitted to the recent use of acrylic sculptured nails that she removed herself using a nail file to scrape off the acrylic that was left after acetone removal.

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**Figure 1.** Triangular thinning and mild erythema of the distal nail plate



**Figure 2.** Dermoscopy of fingernail showing triangular area of thinning with the base lying at the free edge of the nail. Dilated capillaries can be seen within the thinned areas.

## Discussion

The defect in worn down nail syndrome is typically described as a triangular area of marked nail thinning with the base lying at the free edge of the nail. On dermoscopy, pinpoint hemorrhages and dilated capillaries may be present. It was first introduced as “bidet nails” in 1999 by Baran and Moulin [1]. Piraccini et al. [2] reported the disorder in 14 patients, including two tailors who frequently used the back of their hands to flatten fabric. Patrizi et al [3] described it in an 8-year-old girl with a tic disorder who had a habit of scratching her school desk with her nail tips. A similar phenomenon, occurring in patients who excessively use the nail file in conjunction with antifungal nail lacquers, termed “lacquer nail,” has also been described [4].

Commonly reported side effects of acrylic nails include allergic contact dermatitis, which can involve the periungual tissues as well as the face and eyelids owing to the airborne diffusion of the allergen. Onycholysis, paronychia, and prolonged or even permanent paresthesia have also been reported [5].

We present a previously undescribed source of worn-down nail syndrome caused by trauma from nail filing to remove the acrylic nails. Treatment for this disorder typically involves the cessation of

behavior responsible for the recurring trauma to the nail plate.

## References

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