

# Simple Onycholysis

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*Onycholysis may be defined as separation of the nail plate from the underlying nail bed due to disruption of the onychocorneal band. Simple onycholysis is a common condition seen in the dermatologist's office. It is not associated with inheritance, systemic diseases or drugs, dermatophyte infections, warts or neoplasms, or primary dermatologic disease such as psoriasis or lichen planus. It is generally assumed that the longer the disorder has been present, the less likely it is to resolve. As a result, we provide directions that should be given to patients presenting with simple onycholysis.*

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Onycholysis may be defined as separation of the nail plate from the underlying nail bed due to disruption of the onychocorneal band.<sup>1-3</sup> It generally starts at the distal free margin of the nail plate and progresses proximally. Less often, onycholysis starts proximally and extends to the free edge. Onycholysis rarely is associated with inflammation and the onycholytic area usually is smooth and whitish due to the presence of air under the detached nail plate (Figure 1). It may occasionally show a greenish or brown discoloration due to colonization of the onycholytic space by chromogenic bacteria (eg, *Pseudomonas aeruginosa*) (Figure 2), molds, or yeasts.

Simple (idiopathic) onycholysis is not associated with inheritance, systemic diseases or drugs, dermatophyte infections, warts or neoplasms, or primary dermatologic disease such as psoriasis or lichen planus. Simple onycholysis is a common condition seen

in the dermatologist's office. Women present with it more commonly than men. No racial predilections exist and it can occur at any age, even if it is more common in adulthood. Onycholysis is a clinical diagnosis and has no specific histopathology.

When a careful history is taken the patient usually reports contact irritant exposure to nail cosmetics; strong soaps; and foods, especially citrus, or physical trauma. Common causes of trauma to toenails include stubbing the toe, wearing footwear that does not fit correctly, keeping nails too long, and playing sports. Getting an overaggressive manicure, catching the digit in a door or drawer, hitting it with an object such as a hammer, or using the nail as a tool are common traumatic histories elicited when fingernail onycholysis is present.



**Figure 1.** Idiopathic onycholysis of a toenail.

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**Figure 2.** Idiopathic onycholysis of a fingernail with secondary *Pseudomonas aeruginosa* colonization.

The role of *Candida* in simple onycholysis is unclear. In 2 studies (N=93<sup>3</sup> and N=31<sup>4</sup>), yeast was found by culture more than 80% of the time. *Candida albicans* was found more than 50% of the time. Potassium hydroxide studies did not correlate with fungal cultures, as positive tests for yeasts were less than 5%.<sup>3,4</sup> *Candida* is only a secondary colonizer of the onycholytic space, as it occurs in chronic paronychia. In fact, treatment with systemic antifungals does not improve onycholysis.<sup>5</sup>

If left untreated, onycholysis may progressively enlarge; a grading system consisting of 5 stages has been proposed to quantify the degree of separation.<sup>6</sup> It is important to promote reattachment, otherwise the nail bed becomes cornified and produces dermatoglyphics such as the tip of the digit. In this case the nail plate does not adhere to the nail bed anymore, which is the so-called disappearing nail bed.<sup>7</sup> It is generally assumed that the longer the disorder has been present, the less likely it is to resolve.

The cornerstone of treatment is to minimize trauma to the digit. As a result, the following directions should be given to patients presenting with simple onycholysis.<sup>8</sup> Keep the fingernails short. A

### Possible Causes of Secondary Onycholysis

Cause	Nail Clues
Connective tissue disorders	Proximal nail fold capillary abnormalities
Drugs	All or most nails; hemorrhagic changes
Idiopathic	Fingernails; chronic paronychia may be associated
Lichen planus	Nail thinning and fissuring; limited to fingernails
Onychomycosis	Yellow discoloration; usually 1 or a few toenails
Pompholyx	Usually most digits; limited to fingernails
Psoriasis	Erythematous borders; involvement of numerous nails, usually fingernails
Trauma	Usually fingernails; irregular proximal border; transverse leukonychia
Tumors	Limited to 1 digit

long nail acts as a lever. If you hit the end of it, a greater force is proximally transmitted. Cut the toenails straight across. Clip away the onycholytic nail plate and repeat this procedure every 2 weeks until the nail plate grows attached. The exposed nail bed should be carefully dried after each hand washing. Do not use fingernails or toenails as tools and avoid trauma. Wear shoes that fit well; do not wear high heels or narrow-toed shoes. Do not wear artificial nails. Beware of and avoid nail hardeners, especially those with formaldehyde. Do not wear nail cosmetics until the onycholysis has resolved. Wear heavy cotton gloves for wet work and when preparing foods, and wear lightweight cotton gloves under vinyl gloves for wet work. For medical personnel using disposable

gloves, use vinyl nonpowder gloves. Application of a topical antiseptic solution, such as thymol 4% in chloroform, on the exposed nail bed may be useful. *Pseudomonas* colonization can be treated with sodium hypochlorite solution or acetic acid 2%. Keep follow-up appointments with a dermatologist to exclude secondary onycholysis (Table); occasionally, especially when a single nail is involved, a tumor may be involved.<sup>8</sup>

In summary, when simple onycholysis is present, we also treat for *Candida*. We also think that a strict irritant/moisture contact avoidance regimen is important. In all instances of onycholysis, each patient is instructed to keep the nails as short as possible.

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