



## NAILS

In Michelangelo's Sistine Chapel, God and man are not about to touch fingertip to fingertip. No, "God charges with his straight fingertip Adam's bent fingernail."<sup>1</sup> From the beginning, fingernails have been of the utmost import to man. Without these first tiniest of tools, smallest of shields, humans could not defend the dorsal digits, scratch a friend's back, pick up a penny, or button a beautiful blouse. Indeed, perhaps without nails as an example, humans may have never discovered tools.

For physicians, nails provide numerous diagnostic clues to underlying disease. Early in medical school, we learn about capillary refill time and splinter hemorrhages; herein, we shall review these and provide a short list of other important nail findings.

### GLOSSARY OF NAIL TERMS

**Beau lines:** Transverse grooves of the nail plate, representing an interruption in nail production due to trauma, severe illness, or drugs.

**Capillary refill time:** Gross measurement of perfusion performed by pressing the soft pad of a finger and nail bed, waiting until it turns white, and timing the reperfusion. May be due to shock, peripheral vascular disease, dehydration, or hypothermia.

**Dermatophytoma:** Densely packed clump of dermatophytic hyphae beneath a dense white linear or round white area of the mid-nail plate.

**Erythematous crescent:** Prominent erythematous onychodermal band. May mimic Terry's nails or half-and-half nails.

**Half-and-half nails (Lindsay's nails):** Proximal whitish nail bed with brawny erythematous distal half, occurring in renal insufficiency.

**Hutchinson's sign:** Pigmentation of the proximal or lateral nail fold, adjacent to a pigmented band, representing radial growth phase of melanoma.

**Koilonychia:** "Spoon-shaped" nails due to iron deficiency, hyperthyroidism, and other disorders.

**Leukonychia:** White discoloration of the nail plate, which may be whole or partial (**leukonychia totalis** or **leukonychia partialis**). Multiple etiologies including hereditary causes, cirrhosis, ulcerative colitis, metastasis, Hodgkin disease, nephritis, or leprosy.

**Mees' lines:** Transverse bands of leukonychia, associated with arsenic ingestion.

**Melanonychia:** Dark longitudinal bands within the nail. May be related to race or to ingested medications.

**Muehrcke's lines:** Double white transverse lines associated with hypoalbuminemia.

**Nail piercing:** Recent trend of nail decoration in which the distal nail plate of a long natural or acrylic nail is pierced in order to suspend a decorative piece of jewelry.

**Onycholysis:** Distal separation of the nail plate from the nail bed due to multiple etiologies including psoriasis, lichen planus, and various bullous diseases.

**Onychomadesis:** Separation from the nail plate of the nail bed, beginning proximally and progressing distally. It may be traumatic, drug-induced or a sign of systemic illness and may occur distally to Beau lines.

**Onychotillomania:** More severe than nail biting (**onychophagia** or literally “nail eating”). This condition may be difficult to treat. When severe, it may indicate an obsessive-compulsive disorder or other psychiatric diagnoses.

**Onychomycosis:** Fungal infection of the nails, characterized by heaping up and brittleness.

**Splinter hemorrhages:** Longitudinally oriented, dark brown to red hemorrhages, caused by multiple etiologies including trauma and endocarditis.

**Sporodochium:** Rare exophytic fungus ball which may be attached under the distal free edge of the nail plate in some cases of **onychomycosis**.

**Terry’s nails:** Apparent **leukonychia** of the nail bed with a narrow erythematous band at the distal nail bed. May occur in patients with liver disease or other conditions, such as thyrotoxicosis and malnutrition.

**Trachyonychia:** Roughening and thinning of the nail plate. Also called twenty nail dystrophy.

#### Reference

1. Boyle MO. Senses of touch: human dignity and deformity from Michelangelo to Calvin. Boston, Brill; 1998: 276 pp.

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