

# Nail diseases

Pathological changes manifesting in the nail unit form a relatively large group of diseases and disease symptoms that can **accompany a number of skin and systemic diseases**. However, they can also occur independently.

## Non-neoplastic dystrophic changes

### Anonychia

Congenital or acquired absence of the nail plate. It accompanies, for example, lichen planus, epidermolysis bullosa, trauma.

### Pterygium unguis

When the nail plate is lost, the lateral nail ridges grow into the area of the nail bed.

### Beau's Lines

Transverse grooves in the nail plate as a sign of temporary growth arrest (in case of infection, trauma).

### Leukonychia

It belongs to a group called chromonychia (changes in the color of the nail bed). Leukonychia punctata et linearis is a commonly occurring chromonychia caused by minor trauma (e.g. manicure).

### Mallet fingers

Also called *pulmonary hypertrophic osteoarthropathy* or *digiti Hippocratici*. They occur on the hands and feet. It accompanies lung diseases, such as emphysema or malignant tumors. They can also be a symptom of heart failure. In club fingers, the so-called Lovibond angle (the angle between the proximal nail ridge and the nail plate, physiologically it is less than 165°) is pathologically enlarged, which can be seen when looking at the nail from the lateral side. We can also confirm the diagnosis with the so-called Schamroth test, placing the same fingers of both hands (e.g. both index fingers) with the distal joints dorsal to each other so that the nail plates touch. Physiologically, the so-called Schamroth window is created as a consequence of the Lovibond angle.

### Psoriatic nails

We find typical dimpling of the nail plate and so-called oil stains of the nail bed.

### Half and half nail

The proximal half of the nail bed is light, the distal half is dark red. It indicates renal insufficiency or uremia. It is reversible, disappears with treatment.

### Kolionychia

Also spoon-shaped nails, the free edge of the nail plate everts, most often accompanies sideropenic anemia or thyroidopathy. It is also a part of Plummer-Vinson syndrome.

### Onychogryphosis

Marked deformity with bizarre shapes of the nail plate, bent down or to the sides.

### Onychoschisis

Lamellar fraying of the free edge of the nail plate.

## Infectious diseases

- See the *Paronychium* page for more detailed information
- See the *Onychomycosis* page for more detailed information

## Tumors and cancerous affections of the nails

### Benign tumors

#### Koenen's tumor

It is a periungual fibroma, occurs in patients with tuberous sclerosis.

### Digital (acral) fibrokeratoma

A hard skin growth growing near the nail unit.

### Subungual exostosis

A painful bony growth growing from the dorsal side of the distal phalanx (especially the big toe) may elevate the nail plate, often asymmetrically. We demonstrate on X-ray.

### Glomus tumor

A painful tumor showing through under the nail plate as red blood, occurs especially in women, painful symptoms are manifested mainly in the cold. Glomus tumor cells arise from transformed smooth muscle cells of the so-called Sucquet-Hoyer canal, which is a kind of arteriovenous anastomosis at the fingertips with a thermoregulatory function. Histologically, we distinguish three types of glomus tumors - glomangioma (the most common), solid glomus tumor and glomangiomyoma.

### Pyogenic granuloma

It is a lobular capillary hemangioma, a necessary biopsy to differentiate it from the amelanotic form of acrolentiginous melanoma.

### Onychomatricom

Visible as a longitudinal yellow stripe of the nail plate, described relatively recently.

### Digital mucoid cyst

In fact, a pseudocyst without its own wall, contains a viscous fluid.

### Subungual verruca

A hyperkeratotic condition caused by HPV infection.

### Keratoacanthoma

A rapidly growing tumor with typical central hyperkeratinization.

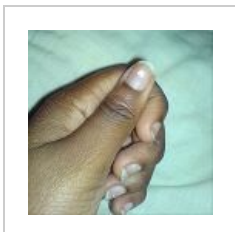
## Malignant tumors

### Squamous cell carcinoma

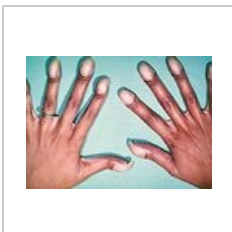
### Subungual melanoma

It is a type of acrolentiginous melanoma, manifested by so-called *melanonychia* (a type of chromonychia, a pigmented longitudinal strip of the nail plate). Melanonychia is often associated with pigmentation of the proximal nail fold = Hutchinson's sign

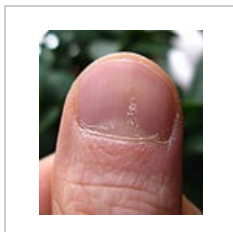
## Gallery



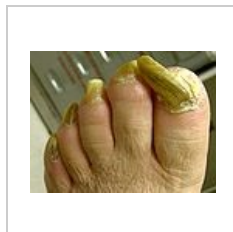
Leukonychia is caused by minor trauma



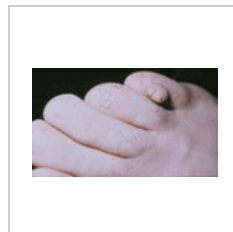
Clubbed fingers in a patient with tetralogy of Fallot



Psoriatic nails with pitting



Onychogryphosis



Koenen's tumor



Subungual exostosis



Glomus tumor  
extraction

## Links

## Related articles

## References

RICH, Phoebe A – SCHER, Richard K, et al. *An Atlas of Diseases of the Nails*. - edition. Parthenon Publishing Group, 2003. 136 pp. ISBN 1-85070-595-X.