

# Dermatophytosis

A synonym for dermatophytosis is the term **tinea**. **Dermatophytes** are natural pathogens of animals. They can spread to the human population through indirect contact. These are fungi that attack the skin, hair and nails. These are keratinophilic fungi that need a long incubation period to grow. It belongs to the genus:

- *Trichophyton*,
- *Epidermophyton* and
- *Microsporum*.

## Clinical picture

**Mycoses of the skin and mucous membranes** have a variegated appearance. We always think of fungal infection when itchy, map-like or garland-like areas begin to appear on it, which peel on the periphery with a subjective feeling of healing in the center.

The most common fungal skin diseases include the toes on the leg. Interdigital fungi in the European area affect up to 50% of adolescents. In addition to whitish horn scales, we can also see small cracks. Nail fungi (**onychomycosis**) of the feet and hands often follow the interdigital lesions.

**Mycosis of hairy areas** (hair, beard) is increasing. Infections from cats, dogs and small rodents cause familial endemics originating from a single domestic animal. **Animal fungal infections** mainly affect children.

### Tinea pedis

etiology: *Trichophyton rubrum*, *T. interdigitale*, *Epidermophyton floccosum* , yeast can also be cultured

#### Interdigital form

It starts most often in the 4th interdigital as white macerated skin, itchy. After the acute phase has subsided, dry peeling remains without subjective difficulties, which can last for decades. Acute exacerbations occasionally occur. It is the gateway to the erysipelas of the lower limbs.

#### Hyperkeratotic form

Characterized by red rough deposits with small peeling. It does not cause subjective problems, it has a chronic course. On the soles, on the heel and on the edges of the foot ("moccasin type").

#### Vesiculo-bullous form

The sowing of vesicles and pustules on the plots in alternating attacks and draws itches strongly. Differential diagnoses: plantar psoriasis, dyshidrotic eczema.<sup>[1]</sup>

### Tinea unguium

*Onychomycosis* is a broader term than *tinea unguium* because, in addition to dermatophytes affections (which are the most common), it also includes involvement caused by yeast and opportunistic hyphomycetes.

#### Distal subungual type (most common)

It starts as onycholysis on the free edge of the nail and progresses towards the posterior nail wall. Sublimative hyperkeratoses, thickening, deformation and discoloration of the nail occur.

Etiology: *T. rubrum*

#### Proximal subungual form (rare)

It starts from the back of the nail wall. Etiology: opportunistic hyphomycetes.

#### Surface white form ( *leukonychia mycotica* ) (rare)

In people with immunodeficiency. Etiology: *T. interdigitale* or yeast.

#### Total dystrophic onychomycosis

Characteristic of chronic mucocutaneous candidiasis. <sup>[1]</sup>

### Tinea corporis

It affects the non-hairy skin of the torso and proximal limbs.

The manifestation is annular erythematous squamous deposits with an infiltrated papular margin, centrifugal progression and a healing center, usually itchy.<sup>[1]</sup>

### Tinea cruris

They occur in the groin area, most often in young men in the summer months and after steaming in tight clothing.

The manifestation is an annular bearing with a raised papular margin.<sup>[1]</sup>

### Tinea capitis

It is usually infection with zoophilic dermatophytes that affect children until puberty. The most common cause is *Microsporum canis* and the source is kittens.

The manifestation is the round deposits of short-haired hair in the forehead.<sup>[1]</sup>

## Diagnostics

KOH is used to directly identify fungi on the skin, nails or hair. We achieve a better result by adding dimethyl sulfoxide (DMSO), which accelerates keratinolysis and allows faster visualization.

In addition to microscopic evidence, diagnostics also relies on cultivation. The following can be used for primary insulation:

- Sabouraud's dextrose agar (SDA) with antibiotics.
- Dermatophyte test medium (DTM) etc.

## Links

### Related articles

- Dermatomycoze
- Treatment of dermatomycoses

### References

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