

Mustansiriyah University
College of science
Biology Dept.

Zoology

4th class

Zoonoses lab. (5)

Dermatomycosis {DERMATOPHYTES}

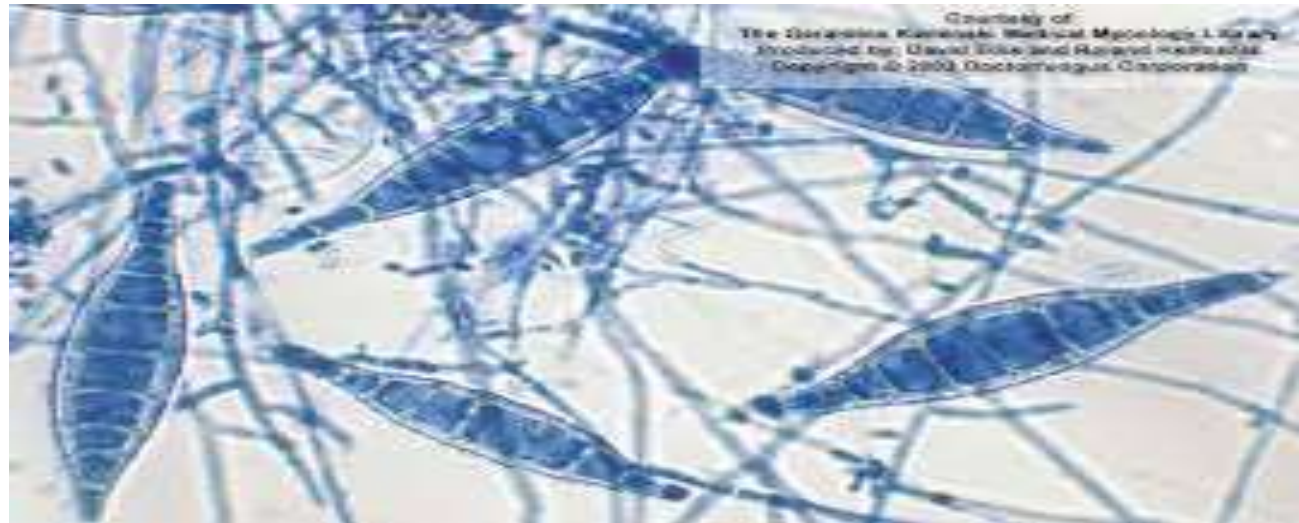
Dermatomycoses are infections of the skin, hair or nails by fungi. The principal causative agents are **dermatophytes**, which are subdivided into three groups (genera):

1. *Microsporum* spp.,
2. *Trichophyton* spp.
3. *Epidermophyton floccosum*.

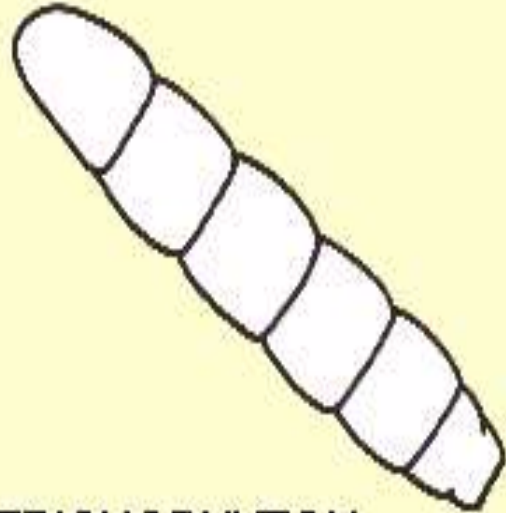
The three genera are distinguished by the form of the **spores**, or **macroconidia**.

CHARACTERISTICS

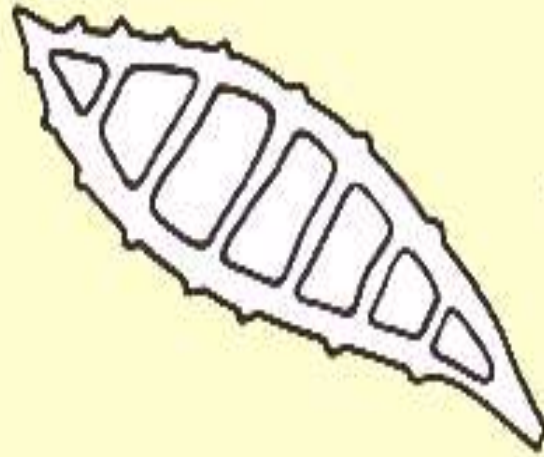
- Trichophyton: thin-walled, smooth, four to six septa
- Microsporum: thick-walled, with projections five to more septa
- Epidermophyton: thick-walled, pear to oval shaped four or fewer septa
- ❖ Besides the **dermatophytes**, yeasts are also capable of causing skin disorders. The most frequent agents in this case are **Candida** spp. and **Pityrosporum**.



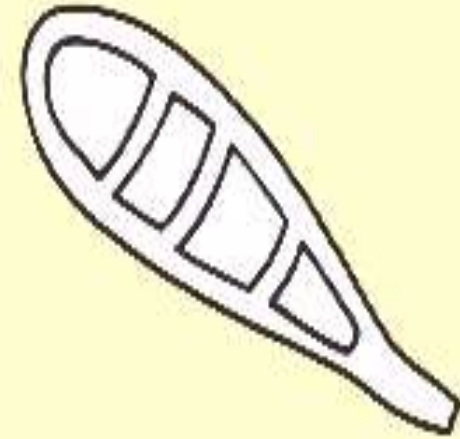
DERMATOPHYTES - CLASSIFICATION



TRICHOPHYTON



MICROSPORUM



EPIDERMOPHYTON

DEVELOPMENT OF A DERMATOPHYTOSIS

- direct contact with infected persons or animals, but it is more often a question of contact with fungal spores. These spores are contained in epithelial (skin) elements of infected persons everywhere in our environment. The floors of communal shower stalls and changing rooms are major sources of infection. For the development of an infection, however, more is needed than contact alone.
- **Dermatophytes** prefer warm, moist conditions. This is why a dry, intact skin constitutes a virtually impenetrable barrier. But the chance of infection is encouraged by everything that has an adverse influence on the situation.

Factors which are conducive to the development of a dermatomycoses

- FREQUENT WASHING WITH SOAP AND INADEQUATE RINSING
- USE OF DISINFECTANTS
- MOIST SKIN, EXACERBATED BY WEARING CLOTHES OF SYNTHETIC FIBRES
- MECHANICAL IRRITATION

DERMATOPHYTES - PREFERRED SITES OF INFECTION

- Most **dermatophytes** have been found to have a preference for certain sites. A preference for growth in and **around the hair**, in the horny layer of **skin**, in the moist, warm folds of the skin, or just under the **nails**. **Trichophyton** species have been found to have the greatest adaptability.
- **Epidermophyton floccosum** occurs principally in the large flexure lines and around the foot. **Microsporum** chiefly attacks the scalp and glabrous skin.
- Furthermore, the preferred sites of infection of **dermatophytes** are, to a certain extent, also determined by the situs where the skin comes into contact with the fungal spores.



