

Major Function

Decomposition of organic matter تحلل المواد العضوية في التربة

Only few fungi cause disease to humans

Pathogenesis

Fungal infection in human is called: **mycosis**, mycoses (pl.)

Most of the poisonous fungi are **bacidiomycetes** & some of them are ascomycetes

Structure

Unicellular – yeasts

True yeast

Individual cells
e.g.
saccharomyces cerevisiae

Yeast-like

Cells attach to each other forming pseudohypha "false filaments"
e.g. *candida albicans*

Filamentous - molds

Hypha (خيطة), hyphae (pl.)

Interwoven hyphae:

mycelium (غزل فطري), mycelia (pl.)

Septate hyphae

divided by septum, septa (pl.)

Non-septate hyphae

also called coenocytic

Examples: *Aspergillus* عفن الطماطم

Penicilium عفن البرتقال

Rhizopus عفن الخبز

Every mold fungi has **one type** of hypha either septate or non-septate

Morphology

dimorphic

monomorphic

Change forms according to:

temperature e.g. hot → unicellular

cold → filamentous

Kind of host e.g. in human → unicellular

in lab → filamentous

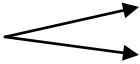
One form

Imperfect fungi / deuteromycetes

- Reproduce only asexually
- Most pathogenic fungi are imperfect
- e.g. *candida*, *aspergillus*, *fusarium*

Reproduction :


1) Asexual:

- a. Somatic 
 - Yeasts by budding
 - Molds by hyphal fragmentation
- b. Spore formation → Sporangiospores, chlamydospores, conidia

2) Sexual (mating):

fusion – more important – genetic mixture – Donor (+), Recipient (-)

sexual spores: oospores, zygospores, ascospores, basidiospores


Zygomycetes ascomycetes basidiomycetes