



Types of Microorganisms

Fungi

Presented by Dr Uswa Fazal

Fsc part(1)





Characteristics of Fungi

- **Eukaryotic Cells**
- Fungi are eukaryotic organisms,
- They have defined nuclei, unlike bacteria.



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- **CELL WALL**
 - Composed of chitin, distinguishing them from plants that have cellulose based cell walls.



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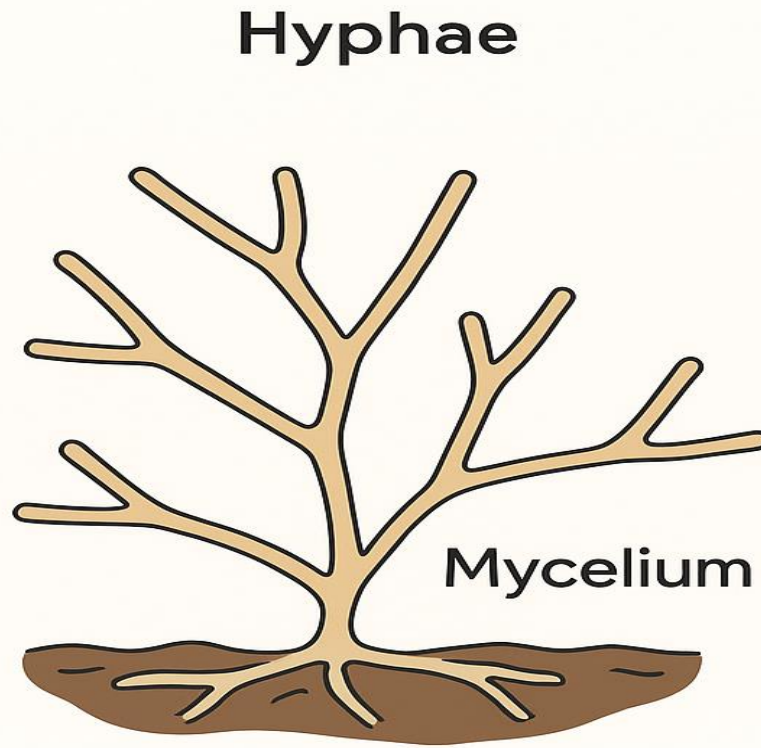
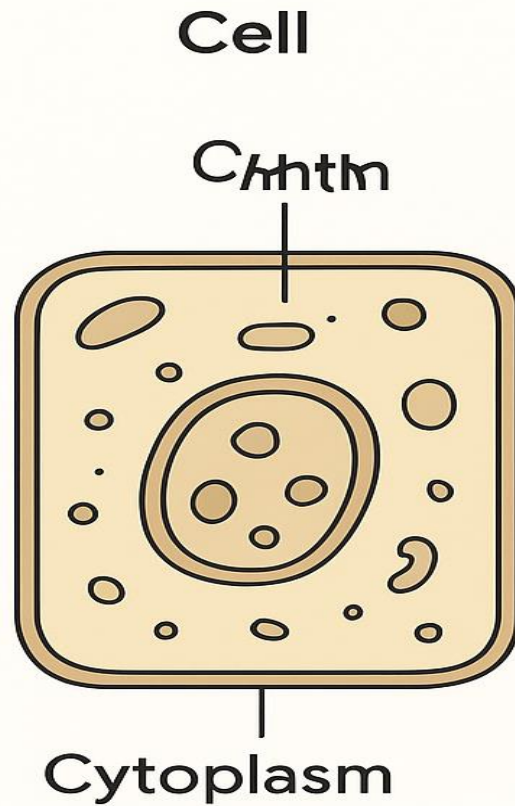
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- **REPRODUCTION**
 - Fungi reproduce via spores, which can form through sexual or asexual means.



Structure of Fungi

- **Mycelium**
- Vegetative part of the fungus
- Typically found underground
- Composed of a mass of hyphae

Structure of Fungi



Reproductive Structures





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- **Hyphae**
- Long filamentous structures that make up the mycelium
- Categorizations of hyphae
- Septate Hyphae
- Coenocytic Hyphae



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- **Fruiting Body(Mushrooms)**
- The reproductive structure
- Emerges from the mycelium
- Responsible for producing and dispersing spores



Types of Fungi

- **UNICELLULAR FUNGI**
- Typically oval in shape
- Known for their ability to grow quickly and can lead to infections like candidiasis
- Candida albicans



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- **MULTICELLULAR FUNGI**
- Grow as filaments called hyphae
- Includes molds, which can cause respiratory infections
- Aspergillus species



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- **MUSHROOMS**
- Recognizable fruiting bodies of multicellular fungi.
- Some species are edible while others can be highly toxic



Ecological Roles of Fungi

- **DECOMPOSERS**
- Essential in ecosystems for breaking down organic matter, aiding nutrient cycling.



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- **FOOD PRODUCTION**
 - Contribute to various food products, including bread and cheese



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- **PATHOGENIC ROLES**
- Some fungi can cause diseases, such as athlete's foot, candidiasis, and aspergillosis.
- Understanding these roles is critical for health and agriculture.



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Thank You