

## Basidiospores

Spore category. Produced by mushrooms, puffballs, shelf fungi, rusts, smuts, and many other fungi.

### Characteristics

#### Distribution

Approx. 1,200 genera.

#### Where Found

Saprophytes and plant pathogens. gardens, forests, woodlands.

#### Mode of Dissemination

Wind; spore release (active mechanism) during periods of high humidity or rain.

#### Growth Indoors

*Serpula lacrimans*, the agent of "dry rot," and other fungi causing white and brown wood rot, grow and destroy the structural wood of buildings. *Poria incrassata* causes a particularly destructive dry rot in buildings.

#### Industrial Uses

Many mushrooms are edible, and very important in the food industries.

#### Other Comments

Occasionally, a benign, non-wood rotting mushroom will fruit inside a building, growing in some unique ecological niche if enough moisture is present. If mushrooms are found growing indoors, we ask clients to submit the entire mushroom for identification.

### Potential Health Effects

#### Allergens

Probably common. Type I allergies (hay fever, asthma). Type III hypersensitivity pneumonitis: Lycoperdonosis (puffball spores), Mushroom culture hypersensitivity.

#### Potential Opportunist or Pathogen

Asexual forms may cause rare opportunistic infections. The yeast *Cryptococcus neoformans* is a basidiomycete.

#### Potential Toxin Product

Mushroom toxicosis (poisoning) is usually a result of ingestion of the following toxins: amanitins, monomethyl-hydrazine, muscarine, ibotenic acid, psilocybin.

### Laboratory Notes

#### Growth/Culture Characteristics

Most Basidiomycetes will not fruit on laboratory media. Many will form arthrosporic or sterile mycelia on laboratory media.

#### Spore Trap Recognition

Most basidiospores have a distinctive asymmetrical attachment point. Many basidiomycetes have recognizable spores. *Serpula*, the agent of dry rot, with tan-orange basidiospores, can sometimes be identified on spore trap slides.

