

The East London Garden Society

Plant Facts

Mushroom Facts



Mushrooms represent a largely unexplored world especially in the Western hemisphere. They are not considered a plant because they don't undergo photosynthesis.

They are a fungus. When it comes to fungi, there are over 5,000 different species in North America alone and many of them are wildly popular in the culinary world.

Several Eastern cultures have long recognised mushrooms for their health promoting attributes. Over the last fifty years, scientists mostly in the Eastern world have finally begun to validate their many potential health benefits.

Over 300 different species of mushrooms are now thought to have potential for promoting health. Evidence continues to emerge, confirming how mushroom proteins, trace minerals, polysaccharides, amino acids and fibre promote overall health.

These and other compounds found in mushrooms are now believed to help:

- Support immune function
- Promote normal cellular growth
- Protect against environmental stresses
- Support your body's normal detoxification process
- Preserve cellular structure
- Support healthy gut flora
- Promote optimal digestion

In other words, mushrooms are increasingly thought to play many different roles: adaptogens, antioxidants, detoxifying agents just to name a few.

A Mushroom Is More than What Meets the Eye

When most people think of a mushroom, they think of a stem and a cap. However, there's much more to a mushroom. What is generally considered to be a mushroom is actually the fruiting body of a much larger mass called

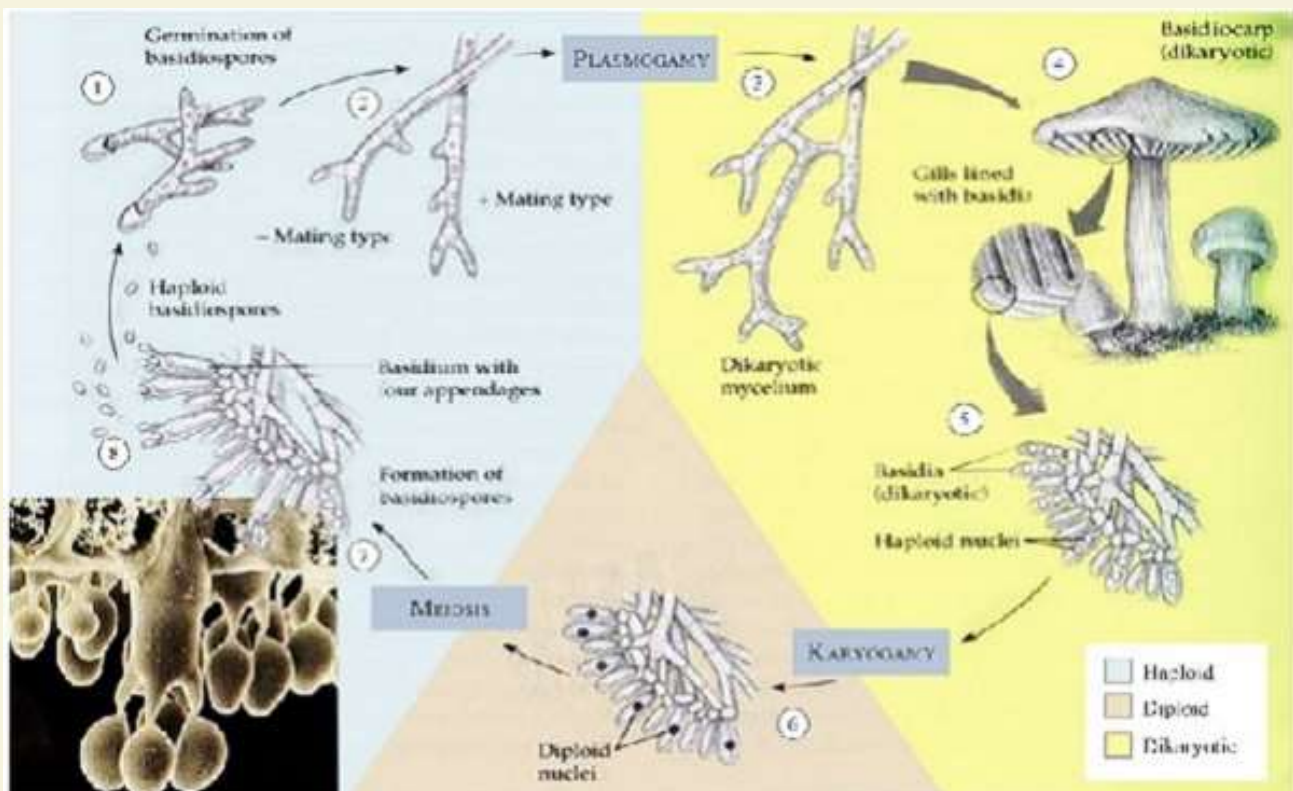
'mycelium'. The mycelium is the part of the mushroom you don't see or typically eat. It's the hidden part of the fungus and is up to 95% of mushroom's total biomass that lies beneath the surface of the soil.

Mycelium is a vast network of living cells covering much of the earth's surface. More than eight miles of these individual mycelium cells, called mycelia, can permeate one cubic inch of soil and as the largest biological entities on the planet, these fungal mats can live for decades and even centuries.

During its life, the mycelium has one goal - to preserve and promote the existence of the species. Mushroom or mycelium cells struggle to survive against invaders so in order to do so mycelia have developed highly efficient and proactive immune systems.

Many scientists now believe that the highly developed immune system that the mycelia has evolved over the years, along with its ability to break down organic matter in nature, are exactly what makes mushrooms so valuable to humans and other mammals.

The Life Cycle of the Mushroom



At stage 1, the mature mushroom releases its spores. These released spores germinate in an environment that promotes growth. It can be soil, plant matter, or other substrate.

Until stage 4, everything is underground. Environmental conditions such as rain and warm temperatures encourage the mycelium to form compact masses that develop into fruit (mushrooms) that can literally pop up overnight.

The mycelium achieves its goal of promoting the species by growing mushrooms. These mycelium 'fruit' produce spores in their cap's underside gills.

The spores rapidly multiply and by the time the mushrooms reach adulthood in their short lifespan, their gills release spores into the air and soil. Every inch of soil hosts thousands of species of fungi. After releasing their spores, mushroom fruit bodies decompose quickly, often within a day. The life cycle then repeats itself.