

# Cryptococcus neoformans

It is a yeast-type fungus that causes *cryptococcosis* (a generalized disease affecting several organs).<sup>[1]</sup>

## Morphology

Cells 5-15 µm in size are *spherical in shape* and propagate by budding. They do not form pseudohyphae. On the cell surface, there is a wide *mucus sheath*, which is an important factor in virulence because it protects the cryptococcus from phagocytosis.

## Epidemiology

Cryptococcus is a common saprophyte in soil, plants and a number of animal hosts. Typical sources of infection are the **ests of birds and their droppings** (mainly pigeons). A person is most often infected by inhaling an unencapsulated fungus, sometimes through Skin (benign form).

## Pathogenesis

The disease it causes is called cryptococcosis.

These can be:

- primary mycosis in healthy individuals,
- secondary mycosis (often in patients with AIDS).

**⚠** It is at the front site among the infirmity of mycotic complications in individuals with AIDS.

They have primarily affected lungs, dangerous hematogenous spread to various organs is dangerous. A serious and typical localization is CNS.

## Laboratory diagnostics

Depending on the form of the disease, we examine cerebrospinal fluid, sputum, urine or blood culture. Microscopically, we see typical budding cells with a wide capsule. Antibodies are minimally produced, serological testing is therefore irrelevant.

## Cultivation

They are not cultivation demanding. They grow for 5-10 days at 37 ° C and 20 ° C. On Sabourad's land, they grow in the form of *yellow and strikingly shiny colonies*.

## Treatment

We administer antifungals (amphotericin B, fluconazole).

## Links

### Related articles

- Yeast
- Findings in the oral cavity in infectious diseases
- Invasive fungal infections

### References

1. ROSYPAL, Stanislav. *Bakteriologie a virologie*. 1. edition. 1994. ISBN 80-85827-16-6.

### Sources

BEDNÁŘ, M. *Lékařská mikrobiologie*. 1. edition. 1996. ISBN 80-238-0297-6.