

Penicillium

(*Penicillium notatum*)

P. notatum (aka *P. chrysogenum*) is one of the most common indoor molds. *P. notatum* does occur outdoors as well, but it is certainly one of the most important indoor mold allergens. It is found on decaying foods, on foam rubber, in house dusts as well as anywhere that water condenses, preferring dark, damp environments. It is able to obtain water from the atmosphere if the relative humidity is 60% or higher, and prefers cooler temperatures, such as in a refrigerator. *P. notatum* has even been found in sub-glacial ice.

Molds reproduce by the airborne distribution of its spores. The spores, or conidia, are the small round balls seen in the picture below left. They grow on the stalk, or conidiophore, and when they mature they are released into the air. These spores cause the problems for allergic individuals, much the same as pollen grains do in pollen allergy. Mold spores, however, typically are found in the air at concentrations a thousand times higher than pollen!

Patients allergic to *P. notatum* should maintain a home environment with low relative humidity, good, filtered ventilation systems, and pay close attention to maintaining a clean, condensation-free refrigerator.

Note that inhalant allergy to the mold *Penicillium* has no relation or connection to penicillin drug allergy.

Penicillium species is most commonly known as a source for producing penicillin, an antibiotic effective against some type of bacteria in the human body. It is also used to make blue cheese and a variety of meats. Naturally, dozens of species are found in soil, indoors, and outdoors. The species does not product airborne spores and is a known cause of human allergy. Allergy to penicillin does not necessarily predict allergy to the fungus *penicillium*.

