Lecture 6 CORE

Lecture 6 Core Learning Objectives

1. Molds growing indoors can make us sick in two ways: allergy and mycotoxins

2. Moisture (excess humidity, free water) supports mold growth indoors

3. Drywall, a material extensively used in homes, can support mold growth

4. How much mold is too much?
   There's no easy answer !!


Interior walls of our houses are made of drywall.

Drywall is a powdered gypsum sandwich, with paper on the outside.

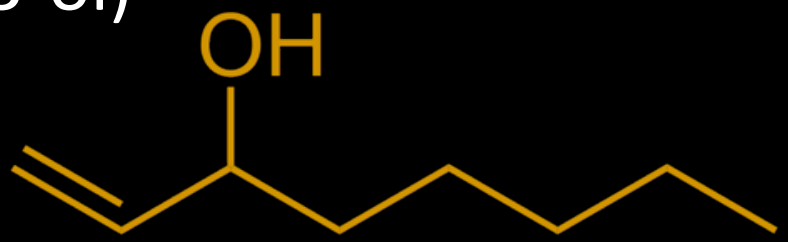
It's fireproof, cheap, easy to install

mold colonies on damp drywall

Volatile mycotoxins?

- Volatile organic compounds (VOCs) produced by fungi disperse in the air

- The musty smell of mold often comes from "mushroom alcohols" (1-octen-3-ol)
    - affect memory
    - affect development



- we still have a lot to learn about *why* fungi might make volatile chemicals

Impacts of indoor molds

- Damage to building materials

- Can cause allergies and aggravate asthma
  - your immune system over-reacts to components of mold hyphae and spores that you inhale
  - runny nose; itchy eyes...

- Mycotoxins!
  - lots of different molds grow
  - indoors, and some make
  - potent mycotoxins

We can count spores in the air…

Typical indoor spore counts range between

100 to 20,000 spores/m^3

- New Orleans post-hurricane moldy home:
  3,000,000 spores / m^3
- What's a good count? We don't know!
- We'll talk about mold cleanup in Lecture 6