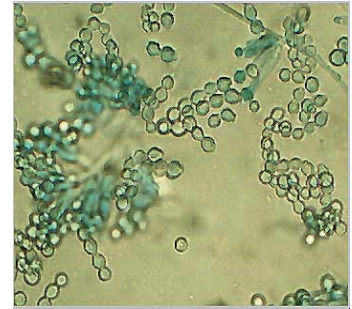


## Moulds - the Hidden Hazard in the Home

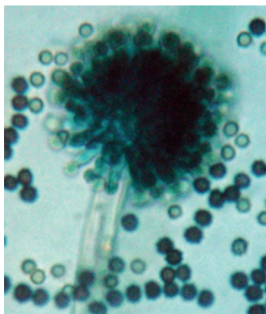
### Where does it occur?

People tend to think of moulds as a problem in very poor houses in severely disadvantaged areas. In fact, many modern homes easily provide the 3 things that mould need to survive and reproduce – moisture, oxygen and something to eat.

The "something to eat" takes many forms and moulds live happily in basements, closets, bathrooms and fresh food storage areas: on house plants, humidifiers, garbage pails, refrigerated drip trays, mattresses, upholstered furniture, foam rubber pillows, wall cavities, wood floors, carpeting, tiles, acrylic paint and plasterboard. The perfect environment is created by damp, leaks or floods coupled with poor ventilation.



### The Nature of the Problem



Moulds reproduce by producing tiny spores that become airborne and it is from there that they are ingested or inhaled. Their best friends in terms of reproduction — the vacuum cleaner, the builder and the air conditioner. Physical disturbance helps to disperse the spores.

The majority of moulds produce allergens so jeopardise the health of immune compromised individuals — the very young, the elderly, the sick and of course, people who are predisposed to asthma, rhinitis and other allergies.

There are some species that produce mycotoxins and these are classed as highly dangerous.

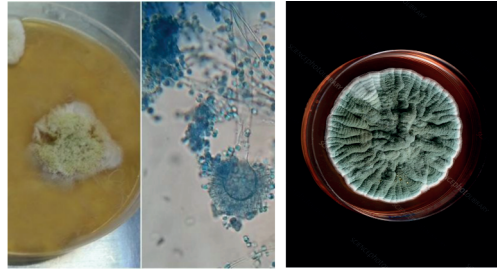
Indoor moulds have been divided into 3 hazard classes:

- **Hazard Class A** – Mycotoxin producers that are highly hazardous to health & must be dealt with immediately
- **Hazard Class B** – Moulds that may cause allergic reactions to occupants if present indoors over a prolonged period of time
- **Hazard Class C** – Includes fungi not known to be a hazard to health but may cause economic damage so preferably not present

In an ideal world, we would now tell you how to identify the species. Unfortunately, there are over 100,000 of them in total and at least 31 genera (family groups) are commonly found in the home.

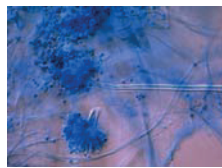
## Moulds – "The Rogues Gallery"

Kitchens and Bathrooms	Hazard Class
<i>Aspergillus fumigatus</i>	A
<i>Cladosporium cladosporioides</i>	B
<i>Cladosporium sphaerospermum</i>	C
<i>Ulocladium botrytis</i>	C
<i>Chaetomium globosum</i>	C



*Aspergillus fumigatus*

*Cladosporium cladosporioides*



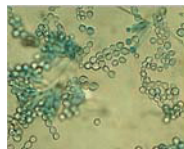
*Aspergillus versicolor*



*Penicillium*



*Aureobasidium* spp



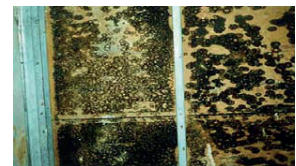
*Scopulariopsis* spp

On Mattresses & Carpets	Hazard Class
<i>Aspergillus versicolor</i>	A
<i>Penicillium</i> spp	B
<i>Aureobasidium pullulans</i>	B
<i>Scopulariopsis</i> spp	B
<i>Wellemia sebi</i>	C
<i>Chaetomium</i> Spp.	C
<i>Aspergillus repens</i>	Not Known

On Wallpapers	Hazard Class
<i>Fusarium</i> spp	A
<i>Stachybotrys chartarum</i>	A
<i>Trichoderma</i> spp	B
<i>Scopulariopsis</i> spp	B
<i>Cladosporium sphaerospermum</i>	C
<i>Chaetomium</i> spp.	C



*Fusarium* spp.



*Stachybotrys chartarum*



*Trichoderma*.spp.

On Window Frames	Hazard Class
<i>Aureobasidium pullulans</i>	B
<i>Cladosporium sphaerospermum</i>	C
<i>Ulocladium</i> spp.	C

In Basements and Cellars	Hazard Class
<i>Aspergillus versicolor</i>	A
<i>Aspergillus fumigatus</i>	A
<i>Fusarium</i> spp.	A



*Aspergillus flavus*

Flower Pot Soil	Hazard Class
<i>Aspergillus fumigatus</i>	A
<i>Aspergillus niger</i>	A
<i>Aspergillus flavus</i>	A

## Safeguarding your health & your home

Unless you have a PhD in mycology or had professional training in mould control, identification is not a realistic objective for the majority of us. There is only one simple course of action –ZERO TOLERANCE! Allergy sufferers are advised to avoid cleaning basements and cellars and should always take care when handling flowerpot & garden soil. If there is any reason to believe that the mould is hazard class A, any individual who cleans the area is advised to wear a facemask.

Within the home, the Bio-Life HomeCare® range is independently proven to get rid of any mels in carpets, furnishings, bathrooms and kitchens. Most importantly, the products are not only effective anti-fungals. Based on Eucalyptus & Ylang-ylang Essential Oils and Benzyl benzoate (Peruvian balsam), they are also SAFE for the ALLERGY SUFFERER. The range holds the Allergy Consumer Care Award.

## Bio-Life Products for Mould Prevention

Product	Suitable for	Application Rate
HomeCleanse®	Mattresses Sofas & soft furnishings Tiles Walls	4 sprays per sq.Metre Leave to dry — the solution will evaporate gradually in 2/3 hours.  For stubborn moulds, re-apply in 24 hours or use FabriCleanse® in solution
FabriCleanse®	Carpets Tiles Walls  Washing clothes	1 ml per litre of normal cleaning or carpet fluid. Wear rubber gloves for cleaning tiles and walls to avoid contact with fluid & mould spores  25 - 30 ml per wash
AirCleanse®	The airborne load	1 spray per cu meter twice per day until the infestation is cleared.  Always spray the area after treatment because physical disturbance will cause the release of spores into the air

As a routine, AirCleanse® should be used once per week to deal with any airborne spores that come in as a matter of course. HomeCleanse® and FabriCleanse® range is recommended for use in the home every 3 months in order to deal with spores that are brought in from soil, plants and other outside sources as a natural course of events.

In damp, polluted areas, the treatments will keep the treated surfaces free of moulds for a minimum of 1 month. Needless to say, if you do have recurrent moulds in certain areas, you need to seek professional help to find the source of excess moisture and improve the ventilation in the area.