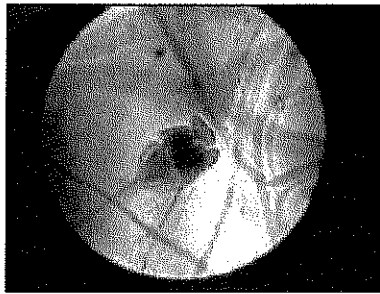


MENACE OF MOLD



By Neil Santaniello

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Indoor-air experts urge caution, not panic, about common fungus.



GATHERING EVIDENCE: Norman Sage, above, of Residential Inspection, Inc., takes a mold sample from a home in Parkland. The mold turned out to be stachybotrys bacteria. Species of stachybotrys have earned notoriety in recent years due to their production of potent toxins in indoor environments. Staff photo/Susan Stocker

It began in October with a troubling scent that permeated Leah Mikulski's Boynton Beach garage and powder room. It was unmistakable to her and household visitors: mold.

After months of tests by a parade of people, an indoor air company finally traced the microbial growth to a leaky air conditioner. But Mikulski, who has asthma, abandoned her home six months into her first pregnancy, moving in with her parents in Delray Beach.

"I would sit in a chair and cry my eyes out, because I couldn't pick out baby furniture," recalled Mikulski, a medical assistant. "I couldn't set up my nursery."

Mold is an old, familiar house guest, from the blotches on damp bread to the dark streaks in the shower stall to the crud clinging to air conditioner coils. But it's also the latest home-environment

scare, in the wake of asbestos and radon gas. It is a proven allergen, aggravator of asthma and, sometimes, a toxic presence, the Environmental Protection Agency says.

Mikulski is not the only South Florida person driven from their home by that microbial malady. Two families bailed out of the upscale Saturnia development west of Boca Raton earlier this year after connecting family illnesses to toxic mold blamed on faulty bathroom plumbing in one home and on an air-conditioner leak in the other.

Perhaps you don't know for sure whether you have a mold home health hazard — buildups of, say stachybotrys or aspergillus, mold types deemed especially harmful. How do you find out?

Do you hunt for a problem yourself, mount a search for something that grows not only in the open, on baseboards and under windows, but out of sight, behind walls and wallpaper, under carpeting?

Or do you automatically bring in a professional, a "mold school" graduate who can ferret out harmful mold and remove it safely?

The EPA, public health officials and mold businesses advise doing a visual search first instead of automatically hiring a professional.

If you need help knowing where to look, heed this tip: Follow the water.

Like seeds, airborne spores that sprout into patches of mold need moisture to grow, moisture that could come from a leaky roof, air handler, washing machine or other

source. Look around for telltale stains and discolorations that could flag water damage.

"It's really a logical progression," said Patrick O'Donnell, owner of an indoor air quality company called Enviro Team in Pompano Beach. "It's not as mysterious as you think when you first look into this. You're looking for moisture."

Using your eyes won't always be conclusive though.

"Looking around the house, that's not covering everything you need to cover," said Scott Gelfand, a Boca Raton attorney working nine household mold litigation cases. "If you don't have visible mold you may still have a mold problem."

Stubborn odors and allergies, and sicknesses doctor visits won't cure, may signal a hidden problem. At

that point it could be the time bring in outside help, to hire a "mold school" graduate, someone specifically trained to do mold investigation and removal, health officials say.

This is where the hunt for mold really gets sticky.

In South Florida, mold detection alone can cost as little as \$200 and as much as \$1,000 or more for a house call. Inspection and cleanup services are offered too by a cornucopia of businesses: duct cleaners, flood damage companies, environmental services firms, home inspectors and building contractors and building-sciences companies. Mold specialists might examine walls, map moisture, put out petri dishes or press strips of tape against surfaces, sending whatever they find to a laboratory for analysis.

In the absence of federal standards for mold and airborne spores, and professional consensus on how much mold is too much, the usefulness of mold testing to point out a problem is disputed.

"There's nothing that everybody's agreed to" as a yardstick to measure mold danger, said Michael Gilley, an indoor air-quality administrator for the Florida Department of Health.

Warns the Minnesota Health Department: "Investigate — don't test. Mold testing is of limited value and should be discouraged in most cases."

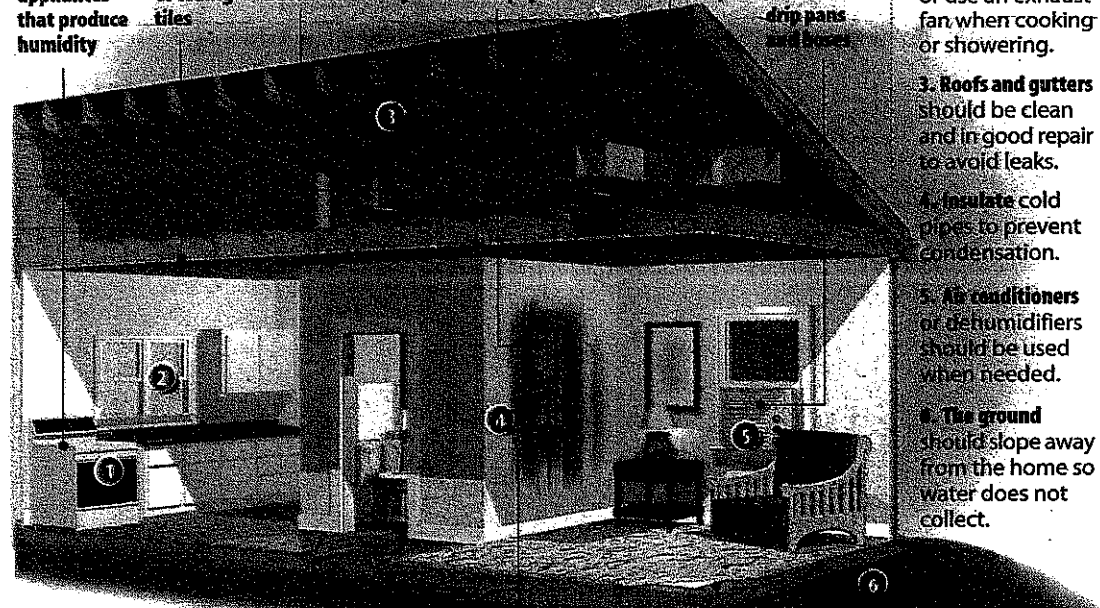
The agency ticks off its reasons: Testing may not detect all the kinds of mold lurking in a building; results only crudely estimate the

Inside a moldy home

Mold can grow when spores in the air land on wet or damp surfaces. Reducing moisture indoors and quickly drying wet surfaces is key to preventing mold. Here's a look at some common places to check for mold around the house:

HIDDEN PLACES WHERE MOLD CAN GROW

- Near appliances that produce humidity**
- On top of ceiling tiles**
- Inside ductwork**
- Backside of drywall or wallpaper**
- In leaky roofs**
- In air conditioner drip pans and basins**



Removing mold

A respirator should be worn when cleaning mold to prevent breathing in spores. Many hard surfaces can be cleaned with detergent and water, but porous materials such as carpets and ceiling-tiles may have to be discarded.

- On cold pipes where condensation forms**
- Underneath carpet and padding**

SOURCE: Environmental Protection Agency Staff graphic/Rich Rokicki

amount of mold present; criteria for interpreting test findings are arbitrary and that "test results are not predictive of health risks."

Bob Varela, a who runs the Deerfield Beach office of Texas-based outfit called Enviro-Mold, a mold removal business, said: "I personally believe no mold should be in an indoor environment."

A bill recently filed by U.S. Rep. John Conyers Jr., D-Mich., aims to clear up some of the mold murk. Called the Toxic Mold Safety and Protection Act, it requires the EPA and the Department of Housing and Urban Development to set "guidelines" for mold inspection, testing and removal, and standards for industry certification.

Some people turn to inexpensive, do-it-yourself home mold testing kits sold on the Web and in hardware stores.

Weston-based Professional Laboratories markets one on the Internet for \$9.95, the PRO-LAB Professional Mold & Mildew Test Kit, said company CEO James E. McDonnell.

Some kits have drawn criticism for their reliance in part on petri dishes or settle plates, small plastic plates filled with a gel-like substance called agar. Spores drop out of the air onto that mold food and grow into colonies laboratories can identify and count.

"All it tells me is that spores are floating through the air," said Glenn Fellman, executive director of the Indoor Air

Quality Association in Maryland, a professional society, of settle-plate tests. "It is not really an effective way to assess microbial contamination in the home."

Norman Sage, a member of the Florida Association of Building Inspectors and American Society of Home Inspectors, scoffs at the settle plates, calling them money-making gimmickry.

"The consumer is not being told" about their limitations, said Sage, of Residential Inspections in Coral Springs.

McDonnell defends them as a screening tool, a "quick picture" of mold concentrations that is a lot cheaper than hiring a professional tester to walk through your door. "We get a lot of testimonials from customers thanking us for developing this kind of product," he said.

There are more accurate ways to sample the air, some mold experts say. Mikulski, who had to vacate her townhome, said air tests done in her home found nearly "triple" the number of mold spores inside vs. outside. That to her was proof beyond her nose, she said.

PREVENTING MOLD GROWTH

1. Appliances such as stoves and clothes dryers should be properly vented.
2. Open the windows or use an exhaust fan when cooking or showering.
3. Roofs and gutters should be clean and in good repair to avoid leaks.
4. Insulate cold pipes to prevent condensation.
5. Air conditioners or dehumidifiers should be used when needed.
6. The ground should slope away from the home so water does not collect.



ONE TYPE: This specimen of mold from a Parkland home turned out to be stachybotrys bacteria. Inhaling or touching mold or mold spores may cause allergic reactions. Staff photo/Susan Stocker

The indoor-outdoor comparison is a "rule of thumb" for air sampling, a way to measure good vs. bad air quality, Gilley said.

For those wishing to hire experts to do their mold assessment, zero in on someone with a history of mold work, and trained or certified by a credible association, suggests the IAQA's Fellman. His association sponsors classes for mold professionals that have trained about 1,000 people as "certified indoor environmentalists," he said.

The EPA suggests checking to see if mold investigators are following protocols endorsed by the American Conference of Government Industrial Hygienists or other professional groups. The EPA offers advice at www.epa.gov/iaq/molds/moldguide.html.

Fellman also recommends steering clear of companies that do both mold investigation and cleanup work because that poses a conflict of interest.

Neil Santaniello can be reached at nsantaniello@sun-sentinel.com or 561-243-6625.