



**P**oke through enough dank crawlspaces and dusty attics, and you gain an encyclopedic store of cautionary tales about ill-conceived DIY plans, bad workmanship and deferred maintenance. Tim Hockenberry, a home inspector on HGTV's *House Detective* and the DIY Network's *Finders Fixers* series, has examined some 6000 homes in the Washington, D.C., area. Until he showed up at a condo in suburban Virginia, he figured he'd seen it all.

Nothing looked out of the ordinary until Hockenberry opened the hatch to the attic. "The guy had cut all of the webbing from the wooden roof trusses and built himself a workshop in the space he'd created. All that was holding up the roof was a 2 x 4 running the length of the unit," he says. "One snowfall and it could have collapsed."

Not every home holds such dangerous secrets—yet more homeowners than ever could be facing unseen trouble. Last year about 1.4 million homes in the U.S. were sold without an inspection. As recently as 2005, when the real-estate boom was in full swing, buyers routinely sweetened their bids in hot markets by consenting to the removal of termite and house inspection clauses. "Right about now, those folks may be discovering some truths about their homes and

dreading what awaits when it's time to sell," Hockenberry says.

Clearly, hiring an inspector before buying a home is a good idea. But you don't need to go house shopping to benefit from the sleuthing know-how of Hockenberry and his peers. PM consulted the pros to compile a do-it-yourself guide for spotting trouble early. An afternoon spent with a clipboard and a flashlight, followed by a few hours setting things right with caulk, shingles and a drill, can save big headaches down the road.

Home inspector Frank Lesh still shakes his head over a discovery he made in one Chicago-area attic. "The owner had rigged a plastic chute into a tub to which he'd hooked an electric pump. When the roof leaked, the tub filled, the pump kicked on and the water went through a hose and discharged out a hole this guy had

drilled in the soffit," he says. "The pump alone probably cost \$125, when all he needed was a few dollars' worth of flashing on the roof."

You'd never do something like that (right?). But subtler problems can develop over time, in the form of hidden leaks, stealthy insects and gradual decay. "I make more write-ups for lack of basic maintenance than anything else," says Rick Yerger, the co-host of *Finders Fixers*, who inspects homes in Dana Point, Calif. "Stuff like failed caulking, water intruding from outside, rusted sink traps, peeling paint, leaking roofs."

Yet owners of new houses aren't off the hook, according to Wally Conway, owner of HomePro Inspections in Jacksonville, Fla. "A new house built with a faux stone veneer is going to be more susceptible to damage from water and bugs than an old house built with materials like real stone and heart pine," he says.

It's all fixable. And it's easy to get started. The process begins with a knowing eye—and a sharp pencil.

Start





## A ROOF-TO-BASEMENT INSPECTION TAKES A COUPLE OF HOURS—AND CAN SAVE YEARS OF HEADACHES.

DIY USE  
**ONLY**



### WHAT TO BRING:

**1 CUT OUT:**  
This checklist



**2 WEAR:**  
Gloves, rubber-soled shoes

**3 CARRY:**  
Flashlight, flathead and Phillips-head screwdrivers



#### Outside

##### Bad Shingles

Use a ladder or binoculars to check asphalt shingles for curling, blistering or other signs of wear.

#### FIX IT NOW

Control ugly and roof-damaging algae, fungus and mold by installing zinc strips along the ridge.

##### Gaps Around Doors



Uneven spaces around doors and windows can indicate shifting of the foundation.

##### Clogged Gutters

"With gutters and downspouts in good shape, it's rare to get water in the basement," says Wally Conway, owner of HomePro Inspections in Jacksonville, Fla.

##### Pushy Plants

Branches can form a bridge to the attic for squirrels, raccoons and other critters. Overgrown shrubbery near the house encourages mildew to grow on siding—and can conceal human intruders.

##### Cracked Caulk

The sealant around doors

and windows is vital in keeping water out. "Caulk is like the brakes on your car. You've got to replace it or bad things happen," says Washington, D.C.-area home inspector Tim Hockenberry.

##### Peeling Paint

It not only looks bad, deteriorated paint also exposes wooden siding to weather damage.

##### Bad Grades

Soil needs to slope away from the house at a grade of 3 in. for every 5 ft. to avoid basement flooding. This is often a problem in new homes, because backfilled soil subsides.

#### FIX IT NOW

Until you can regrade, add extensions to downspouts to carry water 10 to 15 ft. from the house.



#### The Attic

##### Truss Trouble

Any tampering with an engineered roof truss compromises its strength and can create a dangerous condition. If you notice that truss elements have been cut by a previous homeowner to make more headroom, call in a structural engineer—this is serious.

##### Leaky Roof



During a downpour, climb into the attic to look for leaking around chimneys, plumbing stacks, vents and skylights. Scan the underside of the sheathing for water stains.

##### Overused Insulation

Batts that cover recessed lighting fixtures are a fire hazard, unless the fixture is "IC" rated. And blocking soffit vents can drive up energy and repair costs.

#### FIX IT NOW

For good airflow, pull batts off soffit vents.

##### Heat-Leaking Stairs

Are pull-down stairs letting heat pour into the attic? Turn on the attic light, close the steps and look up to check for a loose fit.



#### Living Spaces

##### Shaky Throne

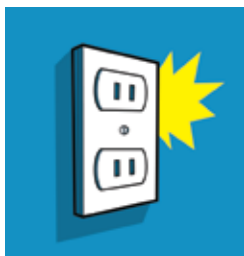
A toilet that wobbles can break the wax ring at its base, leading to major water damage. Tim Hockenberry had one client who ignored this problem too long. "With every flush, water was escaping and gradually rotting the subfloor. One morning, she rode her toilet into the

crawlspace below," he says. Yes, really.

### Misdirected Vents

Dryer vents should exit the building envelope, not lead into a basement, garage or attic.

### Overworked Wiring



Bathrooms in older homes are notoriously ill-equipped for the power demands of hair dryers and other modern gadgets, leading to flickering lights, tripped circuits or even dangerous overheating. At a minimum, a bathroom should have a dedicated 15-amp circuit.

#### FIX IT NOW

Have an electrician replace the wiring—but a DIYer can boost safety by installing GFCI outlets within 6 ft. of the sink.

### Moisture Buildup

Mildew and peeling wallpaper indicate poor bathroom ventilation.

Make sure the exhaust duct leads outside. Also, the CFM rating listed on the fan should at least equal the square footage of the bathroom. "The best bet is a fan with a 30- to 60-minute timer to draw moisture out when you leave," says Seattle home inspector Duane Roundy.

### Stuck Doors and Windows

Jamming can point to whole-house shifting. Also, "I look for cracks above doors and windows, indicating the possibility of structural problems," says former home inspector Karl Champley, host of TV's DIY to the Rescue.

### Water Stains

Don't mask brown stains on ceilings or walls with primer until you find the cause. The likeliest source? A leaking pipe or shower pan. However, a

persistent yellow-brown stain and off odor might mean that squirrels or other critters are living in the attic above.

### Faulty Grout

Shower leaks can lead to rot in studs and wallboard. Frank Lesh, a Chicago-area home inspector, runs the butt of his metal flashlight across the bottom few tile courses and listens: "Click, click, click, thud. The deeper sound tells me a tile is loose or the backer is wet," he says.

#### FIX IT NOW

Tiles still okay, but the grout's showing its age? Clean it out thoroughly before replacing it, then apply sealer.

### Loose Railings

"Give stairwell railings a good tug. You don't want your mom or a child grabbing it and it falls off the wall," Lesh says.

## The Basement

### Rotted Wood

Probe joist ends and sill plates with a screwdriver or an ice pick. Soft spots may indicate wet or dry rot, especially if the floor above sags.

### Holey Joists

Poorly placed drill holes or notches for wire, pipe or duct can sap a floor joist's strength. What's safe varies by manufacturer, but here are some rules of thumb: No holes or notches in the top or bottom flanges of an

I-joist. Even big holes could be okay in the center, but not the ends, of the framing. Drilled holes must be at least 2 in. from top or bottom and no greater than one-third the depth of an I-joist. Notches in a conventional lumber joist

should not exceed one-sixth of its depth or penetrate the center third of the joist span.

### Termite Tubes



Pencil-thick tubes snaking along joists may mean trouble. Break the tubes. If termites spill out or the tube is repaired in a few days, call an exterminator.

### Heater Noise

"If you hear your water heater gurgle, pop or snap, it's time to drain out sediment," Rick Yerger says. "Flushing 3 to 4 gal. prolongs the life of the heater."

### Shoddy Splices

Spliced wiring outside electric boxes is a sure sign that an unskilled electrician has been at work—and a good reason to check out the rest of the home's wiring. "If I find sloppy work in such a visible place," says home inspector Karl Champley, "then what does that say about wiring hidden in the walls?"

### Foundation Cracks

Hairline cracks in a block or poured concrete foundation are nothing to panic about. But watch for cracks that are both horizontal and vertical, or ones that are growing. Keep track of how wide they are—if they get bigger, call in a pro.

