



# Home Tips®



• CHRISTIAN BUILDING INSPECTORS, INC., 1003 STAR COURT, NORCROSS, GEORGIA 30093, (770) 925-8518 • MAY 1993 •

## Q & A

### Reducing Radon?

*I tested our basement for radon recently and the test showed high levels of this gas in my home. Now, I don't know what to do.*

According to Environmental Health Watch, a not-for-profit environmental health and information organization, you shouldn't be alarmed, nor should you initiate costly changes or repairs based on just one test result. If you get a high reading on a short-term test (two to seven days), then you need to do some follow up long-term testing.

Radon is measured in picocuries per liter of air (pCi/l). If you get a short term test result of more than 4 pCi/l, you should do more extensive testing to determine the average annual radon level in your home.

There are two strategies to reduce radon levels: Stop it before it enters your home and remove the radon gas that does get in. Stopping it from getting in involves sealing entry points. Make sure you cover sump pumps, caulk cracks in the foundation and seal crawl spaces.

Removing radon involves increasing the ventilation in the house. This replaces radon contaminated air with fresh outside air.

For detailed information on how to test and deal with radon in your home, contact your state department of health or the local EPA office and ask for their free booklet "Citizens Guide to Radon".

### New Shingles Over Old?

*I am planning to re-roof my house this summer. Can I install new fiberglass shingles without removing the old ones?*

The rule of thumb in the Atlanta area is no more than two layers of fiberglass or asphalt shingles on any roof. The problem is that the weight of more than two layers may be too great for the roof framing to handle. The shingle manufacturers typically recommend that their roofing shingles not be used over more than two layers of old roofing.

One problem with installing over the old roof shingles is whether the new roof will lay flat. If the old shingles have curled, then the new roof will not be smooth and probably have problems with sealing on the course below. One way to eliminate this problem is to break off the curled ends of the old shingles.

With two layers of shingles, the under layer acts as insulation and keeps the outer layer from transferring heat to the roof deck. This could result in some premature deterioration and the life expectancy will probably be less than with only one layer. Excessive heat build up in the attic is another important cause of premature deterioration because of the same heat transfer. Be sure you have adequate attic ventilation.

Because of the expense involved in removing the old roof, many homeowners do elect to put the new layer over the old one.

### Furnace Filters Pros And Cons?

*My son has allergies and I need to reduce the level of dust and pollens in our house. What type of filter should I install in my furnace and air conditioner?*

There are basically four different types of filters used today as an upgrade to the cardboard disposable filters which are only 3% to 5% efficient.

The first is the *electronic* precipitator. These provide efficiencies of up to 96% which is good enough to trap many viruses according to the American Society of Heating and Refrigeration Engineers. The cost is approximately \$700.00 installed and most units should be cleaned monthly.

The second type is the *high-efficiency* particulate arresting filter. They start out at about 40% efficiency but as they retain dirt and pollen, their efficiency can increase to over 99% which is the best on the market. The cost is approximately \$400.00 installed and if you do not run the fan continuously it will last around two years before the canister will need replacing. The replacement cost of the filter canister is only about \$30.00.

The third type is the *extended media* filter. Their efficiency is between 25% to 35%. The cost is approximately \$300.00 installed and the filter should be replaced yearly. The cost of the filter element is around \$80.00.

The fourth type is the self charging *electrostatic* filter. Their efficiency is between 15% to 20%. These filters are charged at the factory and some have been know to reduce the efficiency of the furnace. The cost is approximately \$50.00.

