

# David Kibbey



• Environmental Building Inspections •

• Healthy Building and Consultation •

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## Eleven Common Hazards In Building Environments

**1 - Tight Buildings.** High toxics, poor ventilation.

**2 - Biological Contaminants.** Disease-producing bacteria, mold, mildew, viruses, animal dander, cat saliva, mites, cockroaches, rodents and pollen.

**3 - Particulates.** Respirable small particles such as asbestos, fiberglass, soot, ash, wood and tobacco smoke, dust, mites, pollen, mold spores.

**4 - Combustible Gases.** Carbon monoxide, carbon dioxide, unburned fuel gas, oxides of nitrogen and sulfur, ozone are all byproducts of combustion. Sewer gas is another combustible indoor air pollutant.

**5 - Lead, Other Heavy Metals and Salts.** (Mercury, aluminum, fluoride, cobalt, copper, cadmium, silver, titanium, zinc, etc.). Paint, dust, dishes, crystal, food cans, solder, pipes, faucets, and soil. near buildings.

**6 - Volatile Organic Compounds, (VOCs).** (Formaldehyde, vinyl chloride, benzene, xylene, 4-Phenylcyclohexene, petroleum solvents, etc.). Paints, synthetic building materials, carpets, cleaning products, coatings and adhesives.

**7 - Radon and Other Radioactive Contamination.** Radon found in soil, imported stone or aggregate, natural gas, water, granite, or shale (exacerbated by tobacco smoke). Other radiation comes from ionizing type smoke detectors, tile glazes, recycled mine tailings, nuclear industry and X-rays.

**8 - Pesticides and Fungicides.** (Added to environment or included in materials). Termite control, pest control, agriculturally sprayed foods, fabrics, wood products, moth-proofing, packaging, carpets, paint additives, stored chemicals, garden and landscaping work.

**9 - Electromagnetic Field Radiation, Electrical Fields and Geo-Magnetic Disturbances.** Power lines and transformers, service boxes, building wiring, technical devices and appliances, unshielded cords and cables, dimmers, solar-activated switches, looped circuits, imbalanced circuits, 3-way switching, poor grounding, plumbing currents, fluorescent lighting, low-voltage transformers, VDTs, TVs, electric blankets, water-bed heaters, electric heaters, and underground streams or faults.

**10 - Noise, Light, Color, Smell, Symbolism, Esthetic and Psychological Criteria.**

**11 - Stress.** Overcrowding, darkness, chaos, disorganization, confusion, unclear building design and usage.

*The olfactory system connects directly to the brain. TRUST YOUR NOSE! (Remember not all toxic substances can be detected by odor, but the nose is an important built-in warning system).*

# David Kibbey, Environmental Building Consultant

## Typical Home Ailments

### Kitchen

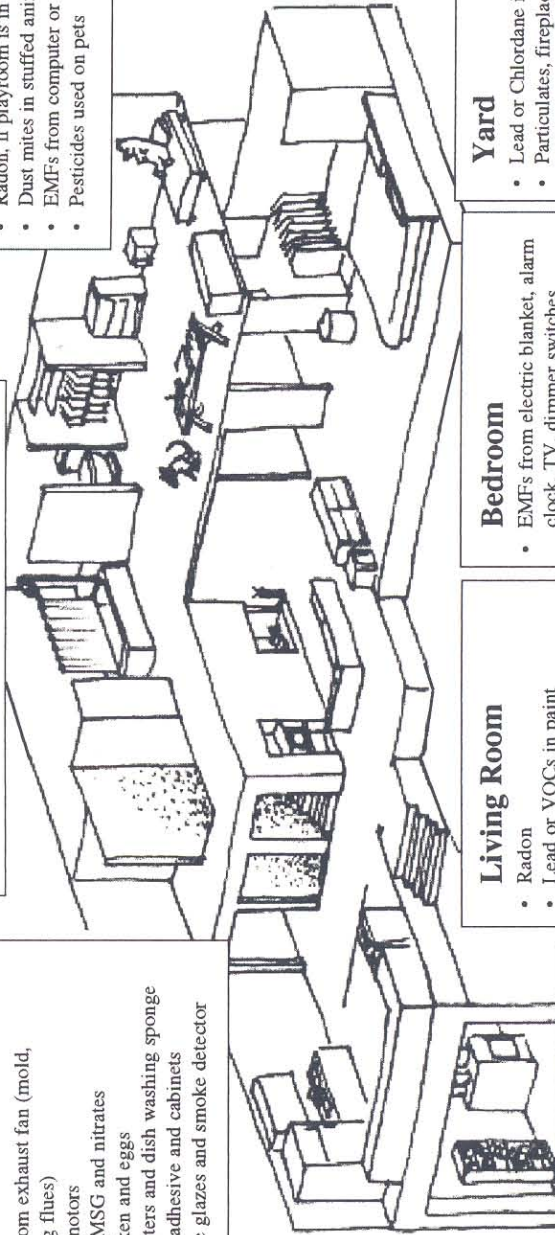
- Combustion gases from gas range
- Radon in drinking water, gas, and granite counters
- Lead, pesticide, chlorine, nitrates in drinking water
- Household pesticides for roaches and ants
- Pesticides on fruits and vegetables
- Volatile organic compounds and perfumes in cleaning products
- EMF's and Electrical fields from microwave oven and appliances
- Negative air pressure from exhaust fan (mold, infiltration, backdrafting flues)
- Ozone from appliance motors
- Food additives such as MSG and nitrates
- Salmonella in raw chicken and eggs
- Mold in tile grout, counters and dish washing sponge
- VOCs in floorcovering adhesive and cabinets
- Ionizing radiation in tile glazes and smoke detector

### Bathroom

- Chlorine in air from shower
- Radon and lead in water
- Mold and mildew on shower curtain and under sink
- Toxic chemicals in disinfectants and toilet bowl cleaners
- Toxic perfume in personal products
- Asbestos in floorcovering
- Negative air pressure from bath fan

### Playroom

- Toxic solvents in rubber cement, airplane glue, and marking pens
- Bio-nasties from humidifier and carpet
- Formaldehyde in child's clothing
- VOCs in carpet and furniture
- Plasticizers in plastic toys
- Lead in old paint on antique toys
- Toxic pigments and solvents in paints
- Radon, if playroom is in basement
- Dust mites in stuffed animals
- EMF's from computer or TV
- Pesticides used on pets



### Living Room

- Radon
- Lead or VOCs in paint
- Carbon monoxide and particulates from fireplace or cigarettes
- Toxic emissions from synthetic fireplace logs or gas flame
- Polluted, leaky HVAC ducts
- EMF's from television
- Dust from vacuum cleaner
- Pesticides, mold, dust mites, and VOCs from carpet
- VOCs from upholstery and cleaning products
- Asbestos from ceiling tile

### Bedroom

- EMF's from electric blanket, alarm clock, TV, dimmer switches
- Dust mites in bedding and carpet
- VOCs from dry-cleaned clothes and mothballs
- Formaldehyde from carpet, bedding, furniture, and clothing
- Mold and other bio-nasties from humidifier, single glazed windows, poor ventilation
- Combustion by-products including carbon monoxide from space heater
- Positive air pressure from closed door with no return air

### Yard

- Lead or Chloridane in soil
- Particulates, fireplace smoke and ozone in air
- EMF's from power lines
- Pesticides in garden or lawn
- Auto exhaust pollution
- VOCs in fuels and carcinogens in exhaust from lawn or trimming machines
- Noise pollution
- Toxic barbecue lighter fluid and charcoal smoke
- Toxoplasmosis from cat feces

### Basement / Garage

- Pesticides for termites
- Radon
- Combustion gases from furnace and water heater
- Asbestos or fiberglass from duct insulation
- Mold from moisture damage
- Hazardous chemicals in paints and solvents
- Toxic emissions from autos: rubber, gas, oil, fluids, plastics, paints, exhaust, anti-freeze
- Dead rodents
- Stored items including pesticides, gas-powered garden equipment, lubricants, cleaners