### **ENVIRONMENTAL HOME**

# Chemical sensitivity can be major issue for some

#### **By Dan Howard** For Trib Total Media

Imagine you are in one of those science fiction or horror shows where the people are slowly being killed by a mysterious noxious gas.

The contaminating gas is slowly and invisibly seeping from unknown sources. Your eyes are burning. Your muscles ache. Your head throbs with pain. With each passing day you are becoming sicker and sicker. Even sleeping is a struggle as your body aches for fresh air.

For many people this is not a movie that will end in a couple of hours. Multiple Chemical Sensitivity patients are living that real-life nightmare. A University of Melbourne research study in the Journal of Occupational and Environmental Medicine has shown that one in four Americans report some form of chemical sensitivity.

They concluded that "nearly half of that group could be medically diagnosed with Multiple Chemical Sensitivity (MCS) suffering health problems from exposure to common chemical products and pollutants such as insect spray, pain, cleaning supplies, fragrances and petrochemical fumes (VOC's)."

The study noted that "people with MCS are like human canaries. They react earlier and more severely to chemical pollutants, even at low levels."

We have learned that what we eat can affect our health. Too much fat? Too much sugar? Pesticide on fruit? Listeria on vegetables? E. Coli in meat? We know those can make us very ill. We get that whole thing about what we eat.

We eat some of the time, but we breathe ALL of the time. Despite this, we sometimes have trouble understanding that the chemical soup of fragrances and off-gassing products we create in the air can make some people ill. How can all those fragrances in everything from household cleaners to new cars, furniture, carpeting and magazines delivered to our homes affect health?



We understand that some children can eat a single peanut and go into anaphylactic shock. Even though it is the same principle, some people do not understand that individuals can react differently to certain chemical and biological exposures. It is often family members that do not understand that a spouse or child is reacting to environmental exposures. That increase stress in the home can intensify the health problems from the exposure.

Many MCS patients have spent years searching for medical providers that diagnose MCS as the cause of their health problems instead of other illnesses. The good news in this area is that many medical practitioners are now recognizing and treating this condition.

The next challenge for the MCS patient, their family and medical practitioners is identifying the type and location of the exposures that are making them ill. The objective is to avoid those contaminants, but you need to know what you are avoiding in order to avoid it. We all know about Glade Air Fresheners. They are a great example of chemicals that can trigger a reaction in a patient.

Some of the reasons that homes, schools and public buildings have environmental contaminants include:

• Many products are packaged and sold with fragrances added.

• Building products, furnishings and equipment are made of materials that off-gas chemicals including everything for carpet to cabinets to the plastics used for flexible ductwork.

• Buildings are built tighter. The old-timers would say "the solution to pollution is dilution"

• HVAC systems and building energy saving systems reduce the dilution air.

The bottom line is that there are thousands of chemical exposures to chemicals in increasing tight buildings. Each of the exposures or combination of exposures can create a chemical overload which can be debilitating to sensitive individuals. Identifying environmental triggers One of the least-used, but valuable techniques for identifying environmental triggers is doing a diary of where people spend time, what activities they participate in, what foods they eat and how they feel.

That information can help narrow the source of exposures.

Functional Medicine or Holistic Medical Practitioners have new testing methods to diagnose MCS triggers. There are skin and blood tests that can help identify the patient's biological reactions to exposures. There is also an evolution of the practices where correlations, such as mold exposure and difficulty in recovering from Lyme Disease, are being considered.

There are environmental inspectors who can identify sources of environmental hazards. This is far beyond simple air testing. The process is to review a property and, based upon identified potential sources, test to determine the presence of contaminants. Specially trained professionals are familiar with conditions, products and materials that can be of risk to MCS patients.

## New methods, tools to reduce exposures

There are a number of methods and types of equipment to minimize health problems for MCS individuals once they are identified.

In some instances, careful selection of "green" and "fragrance free" products such as cleaning and personalcare products will reduce chemical exposures. We need to be aware that imported products and building materials are often mislabeled and misleading as "green."

Adding fresh air to a building using Heat Recovery Ventilation (HRV) or Energy Recovery Ventilation (ERV) will dilute indoor pollution buy adding exterior air while minimizing energy loss in the building.

Filtering the air utilizing a HEPA filter will help reduce allergens and other particles. This can be a portable unit for a small area such as a bedroom or a whole house unit for an entire home and still be helpful. This technique is not effective for chemical odors.

Activated charcoal filtration is ideal for removing chemicals and odors such as VOCs from the air.

The charcoal filters need to be replaced frequently, can't be cleaned and are often expensive. This is not suited for removing large particles which the HEPA filters can correct.

#### Increasing hope and resources

There are now medical practitioners skilled in helping these patients.

The sad story is that many MCS patients have had frustrating years of testing and misdiagnosis before they find medical help that understands this problem. It is the changes in how we live and manufacture materials that has exacerbated the incidence of chemical exposures. It has taken time for us to begin to understand the problem.

As more people have become chemically sensitive, the number of manufacturers making green products has increased.

A larger demand for dealing with chemical exposure reduction has resulted in more vendors being aware of the problem and specializing in reduction of exposures. They have learned techniques, such as letting carpet and cabinets off gas in a wellventilated warehouse before installation in the home of an MCS patient.

Environmental inspectors are being trained across the country by specialists in the practice of understanding building and exposures.

The bottom line is that as more people have suffered with the issue of chemical sensitivities, more experts, providers, products and solutions have emerged.

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