BIOLOGICAL CONTAMINANT FACT SHEET

What are biological contaminants?

Biological contaminants include bacteria, molds, mildew, viruses, animal danger and cat saliva, house dust mites, cockroaches, and pollen. There are many sources of these pollutants. Pollens originate from plants; viruses are transmitted by people and animals; bacteria are carried by people, animals, and soil and plant debris; and household pets are sources of saliva and danger. The protein in urine from rats and mice is a potent allergen. When it dries, it can become airborne, Contaminated central handling systems can become breeding grounds for mold, mildew, and other sources of biological contaminants and can then distribute these contaminants throughout the home.

How can these contaminants affect my health?

Some biological contaminants trigger allergic reactions, including hyper-sensitivity, pneumonitis, allergic rhinitis, and some types of asthma. Infectious illnesses, such as influenza, measles, and chicken pox are transmitted throughout air. Molds and mildews release diseases-causing toxins. Symptoms of health problems caused by biological pollutants include sneezing, watery eyes, coughing, shortness of breath, dizziness, lethargy, fever, and digestive problems.

Allergic reactions occur only after repeated exposure to a specific biological allergen. However, that reaction may occur immediately upon re-exposure or after the multiple exposures over time. As a result, people who have noticed only mild allergic reactions or no reactions at all may suddenly find themselves very sensitive to particular allergens. Children, elderly people and people with breathing problems, allergies, and lung diseases are particularly susceptible to disease-causing biological agents in their air.

How can I reduce my exposure to these contaminants

Install and use exhaust fans that are vented to the outdoors in kitchens and bathrooms and vent clothes dryers outdoors – These actions can eliminate much of he moisture that builds up from everyday activities. There are exhaust fans available that produce little noise, an important consideration for some people. Another benefit to using kitchen and bathroom exhaust fans is that they can reduce levels of organic pollutants that vaporize from hot water used in showers and dishwashers.

Control your home's humidity – By controlling the relative humidity in a home, the growth of some sources of biological contaminants can be minimized. Ventilating attics and crawlspaces can reduce and keep humidity levels below 50 percent and prevent water condensation on building materials. A relative humidity of 30-50 percent is generally recommended for homes, Standing water, water-damaged materials, or wet surfaces also serve as a breeding ground for molds,mildews, bacteria, and insects. House dust mites, the source of one of the most powerful biological allergens, grow in damp, warm environments.

Clean humidifiers according to manufacturer's instructions and refill with fresh water daily. – Because both cool mist and ultrasonic humidifiers can become breeding grounds for biological contaminants, they have the potential for causing diseases such as hypersensitivity pneumonitis and humidifier fever. Evaporation trays in air conditioners, dehumidifies, and refrigerators should also be cleaned frequently.

Thoroughly clean and dry water-damaged carpets and building materials – Water-damaged carpets and other materials should be cleaned and dried within 24 hours if possible; if not, consideration should be given for their removal and replacement. Water -damaged carpets and materials can arbor mold and bacteria. It is very difficult to completely rid such materials of biological contaminants.

Keep your house clean – House dust mites, pollens, animal dangers, and other allergy-causing agents can be reduced, although not eliminated, through regular cleaning. People who are allergic to these pollutants should use allergen-proof mattresses casements, wash bedding in hot (130 degrees F) water, an avoid room furnishings that accumulate dust, especially if they cannot be washed in hot water. Allergic individuals should also leave the house while it is being vacuumed because vacuuming can actually increase airborne levels of mite allergens and other biological contaminants. Using central vacuum systems that are vented to the outdoors or vacuums with high efficiency filters may also be of help.

How can I get more information about these contaminants?

For more information, you can call the City of Alexandria's Office of Environmental Quality, at 703-746-4065.