HEALTH RISKS AFTER THE HURRICANE AND STORM: MOLDS

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Abstract: Hurricane Katrina hit Mississippi coastal area three years ago. Recently, I visited two communities and presented finding of one of research results about heavy metals and also lecture about how to prepare for future nature hazards. Surprise to me, both group want me to talk about “mold”. I thought after three years, the buildings and homes either renovated or rebuild, they should not have indoor air pollution problem. April 4th, 2008, a strong storm system move trough parts of Mississippi caused serious damage in metro Jackson area. Governor Harley declared a state of emergency for 12 Mississippi counties on April 7th, 2008. Mississippi Emergency Management Agency (MEMA) reporting 11 counties damaged in storm for Hinds County where we are located, 50 homes destroyed, 1,600 homes major damage and 6,100 homes reporting minor damage, 20 businesses major damage, 25 minor damage. Most of the houses top were blow away, the tree fall on the top of it, the worse cases is part of house was hit by tornado. These create a phenomenon most of us will do; you will see blue or transparent color plastics on top of houses and damage areas to prevent wind and water coming again. These temporary hold water and intrusion but create a perfect condition for mold to grow. The major factors are moisture and temperature. Molds, Mushrooms, mildews, and all yeasts are all classified as fungi, a kingdom of organisms distinct from plants and animals. They are approximately 100,000 known species of fungi. Visible growth of multicellular fungi consisting of branching filamentous structures is known as molds. Certain common molds can produce metabolites with a wide range of toxic activities such as antibiotic, immune suppressive, carcinogenic, emetic, and hallucinogenic. Mycotoxins are fungal metabolites that poison humans and animals. Although ingestion is the most common route of exposure, inhalation and dermal contact also are exposure of concern. The mycotoxins production is not rely on species and strain of mold but also rely on environmental conditions. The paper discusses the possible health risk, which is at risk, how to prevent and removing techniques after extensive water damage after major hurricanes and floods.

Keywords: molds, mycotoxins, fungi, hurricane, MEMA, multicellular