

News

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****Allergy sufferers may react to Christmas trees

Many people find themselves plagued during the holiday season with allergy symptoms: runny nose, watery eyes, sneezing and coughing. Often they do not realize that a Christmas tree may be the source of their misery.

Timothy Sullivan, M.D., chief of the Division of Allergy and Immunology and associate professor of internal medicine and microbiology at The University of Texas Southwestern Medical Center at Dallas, says that Christmas trees can aggravate several allergic conditions.

"There are a variety of factors that can cause people to be allergic to their Christmas trees," Sullivan says. "People with pre-existing allergic conditions or respiratory difficulty should be aware that if their symptoms worsen during the holiday season, their tree might be the cause.

Those allergic to mold should be wary of trees from commercial lots, Dr. Sullivan adds, because tree lots are a common breeding ground for mold. Many trees grown for commercial sale also are made

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to look more attractive with chemical treatments that can trigger allergic reactions.

Dr. Sullivan suggests that washing commercially purchased trees with a fungicide before use can eliminate most contaminants.

Cutting down a live Christmas tree is not always the solution to tree allergy problems. Mountain cedars (*Juniper ashei*) grow throughout the United States and make attractive Christmas trees. Unfortunately, mountain cedar trees cause allergies in a larger number of people than any other respiratory allergy except ragweed, Dr. Sullivan says.

To make matters worse, male mountain cedars pollinate during the winter months. If one of these trees is chosen as a Christmas tree, it could release its pollen in the house.

Male and female mountain cedars can be distinguished in two ways: Male trees have a characteristic brownish or golden hue during pollination, and female trees produce small blue berries.

People who are allergic to mountain cedar trees may soon receive relief, however. Dr. Sullivan and his colleagues have been investigating this allergy in an attempt to develop more effective treatments and a potential preventive vaccine.

"Mountain cedar is the ideal allergy to study because it is so common and, more importantly, because it is such a simple molecular example," notes Dr. Sullivan. "We hope to apply our research findings from the mountain cedar to more complicated allergic reactions."

The scientists have disassembled the mountain cedar molecule and isolated a single protein that causes the allergic reaction. They are currently attempting to synthesize fragments of the protein to create

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an antibody with the capability to block the allergic reaction and thus control the effects of the disease.

Sullivan expects that his research with the mountain cedar allergy will eventually enable him to predict from genetic makeup which people will be affected by allergies. Those who are predisposed to certain allergies could be inoculated against them before ever suffering the discomfort of allergy symptoms.

Dr. Sullivan's research is funded by the U.S. National Institutes of Health.

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Note: The University of Texas Southwestern Medical Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School.