How to avoid “Christmas Tree Syndrome”

Christmas trees help set the holiday mood with twinkling lights, shiny ornaments and the scent of pine. This year, Americans will buy 25-30 million live Christmas trees to decorate their homes for the holidays. About 85% of those trees will be pre-cut weeks ahead of time – in most cases prior to Thanksgiving. The trees are cut, baled and packed into refrigerated trucks to be delivered to a tree seller near your home.

Unfortunately, along the way, moisture and the tight bundling of the trees supports an ideal environment for mold to grow. In many cases, once the tree gets into your home the mold on the tree begins reproducing, triggering an allergic reaction known as “Christmas Tree Syndrome.” About 7% of the general population with allergies suffers from Christmas tree allergies.

Christmas trees and mold

In one study, researchers closely measured mold counts in a room that contained a live Christmas tree. During the first three days that the tree was indoors, mold spore counts remained at about 800 spores per cubic meter of air. Starting on the fourth day, however, the spore counts began rising and eventually reached 5,000 spores per cubic meter within two weeks. Counts higher than 700 spores per cubic meter are an indication that mold growth is occurring in an environment.

In another study, researchers examining 23 samples of bark and pine needles from Christmas Trees found 53 different kinds of mold. Many of the mold varieties found on the trees were those most likely to trigger allergies – including:

- **Aspergillus.** This type of mold is especially dangerous for individuals with compromised immune systems.
- **Penicillium.** The mold from which penicillin is made, it causes allergic reactions in some people.
- **Cladosporium.** A common mold that can cause skin infections and allergic symptoms.
Although there is no single set of state or federal standards regarding acceptable indoor mold spore levels, the World Health Organization considers indoor concentrations greater than 500 spores per cubic meter to be unacceptable. At the very least, the elevated mold spore levels associated with live Christmas trees means that families with allergies should consider keeping a live tree indoors no more than a few days, especially if there are signs of increased allergies.

### Pollen can also be a problem

Pine pollen is not a major issue with Christmas trees, because evergreen plants pollinate in the spring, not in early winter. However, the trees come into contact with grass and ragweed pollen, and may carry these into the house. Sometimes, grass pollen sticks to the sap in a Christmas tree during the spring. Then, when the tree is harvested and brought indoors, the sap dries out and the trapped pollen particles are released into the air.

### What you can do

If you still cherish the idea of a live Christmas tree in your home for the holidays, take heart. Here are a few simple steps you can take to reduce the likelihood that you or someone in your home will suffer from Christmas Tree Syndrome:

1. **Clean and wipe the trunk** of your tree thoroughly with water and bleach before you bring it into the house.

2. **Use a leaf blower** to remove as many pollen grains as possible before bringing the tree indoors.

3. **Get rid of the tree sooner.** Mold spores increase the longer the tree is around. Consider removing the tree from your home the day after Christmas.

4. **Consider purchasing a self-cut tree.** By cutting your tree yourself you bypass the storage and transportation conditions that promote mold growth.

5. **Use a high-performance room air purifier** in the same room as the tree. The IQAir HealthPro® Plus will remove more than 99.97% of all pollen and mold spores that pass through the system.

By taking a few simple precautions such as these, you can make your holiday season decorative, delightful and, best of all, allergy free. If all else fails, consider switching to an artificial tree. It may not fill your living room with the nostalgic scent of pine, but it won’t trigger your allergies, either.

*This online publication is brought to you by The IQAir Group, which develops innovative air quality solutions for indoor environments around the globe. IQAir is the exclusive educational partner of the American Lung Association for the air purifier industry.*