Pollen and Mold Counting 101

Monday through Friday you anxiously wait to hear or see the mold and pollen counts for the day. But what is the process for finding these counts? Is the process automated?

As a certified mold and pollen counting station by the American Academy of Allergy, Asthma and Immunology (AAAAI), the Oklahoma Allergy & Asthma Clinic has two certified pollen counters on staff. In order to become a counter, you must successfully complete an Aeroallergen course.

Lisa Mallory and John Harris are the OAAC’s certified pollen and mold counters in addition to their other staff duties. Training is intense and takes more than a year to complete. You must pass a web-based qualifying exam. Following successful completion of the qualifying exam the candidate must successfully count and identify pollen grains and mold spores on a slide. Certification renewal is expected every two years.

How is the count accomplished? A Burkard air sampler is mounted on the roof of the OAAC main office at the Oklahoma Health Center. The machine has an orifice that takes in the air. Each morning, one of the counters collects a slide from the air sampler on the rooftop where the pollen and mold particles have landed through the night. The slide is treated with a staining agent that aids in the identification of pollen. The slide is then left to dry for about an hour or so.

After the slide has dried, then the fun begins.

“There is no time limit, I begin counting hundreds of pollen grains and thousands of mold spores using a microscope,” said Lisa Mallory. “The counts are then added, calculated and shared with OAAC physicians, researchers, National Allergy Bureau, News Stations

AAACHOOO! Ragweed Season Comes Early

Ragweed has already reared its ugly head this year. An estimated 50 million people in the U.S. suffer from hay fever. This year has been especially challenging for those dealing with allergies and asthma. Unusually heavy rains in the spring continuing throughout the summer along with a generally milder summer have caused Oklahoma’s weed population to proliferate.

“Unfortunately with the heavy rains this year, it has caused ragweed to start earlier than usual. We anticipate this is going to be an especially tough fall allergy season,” said Dr. Laura Chong, a board certified allergist with the OAAC. “As we get further into September we anticipate much higher ragweed pollen counts.”
Ragweed Season...
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Weed season typically will run from early to mid August through the end of the fall.

Symptoms can include sneezing; runny or stuffy nose; itchy throat or inside of ears, hives; swollen eyelids and itchy eyes. Some people also develop asthma symptoms, such as coughing, wheezing, and trouble breathing. Although, allergies do not directly cause infections it can lead to inflammation that can predispose people to getting sick with infections like bronchitis and sinusitis.

Preparing for ragweed season now might avoid misery later. Some allergy medicines should be taken several weeks before ragweed season begins. Ask your OAAC allergist about the appropriate course of action.

Tips to avoid contact or to limit contact with ragweed pollen:
- Wash your hands often.
- Try to limit time outdoors when ragweed counts are high. Avoid mid-day when counts are at their peak level.
- Wear a dust mask if working outside.
- Don’t wear outdoor work clothes inside to avoid bringing pollen into the house.
- Clean and replace HVAC filters often using HEPA filters that remove at least 99 percent of pollen and other particles.

Not So Friendly Fungus Causes Allergic Bronchopulmonary Aspergillosis (ABPA)

A fungus found in the soil called Aspergillus fumigatus can cause Allergic Bronchopulmonary Aspergillosis (ABPA). For some people, the immune system overreacts to antigens of aspergillus fumigatus found in the lungs. This may damage the airways and result in permanent damage. ABPA more commonly affects people with asthma or cystic fibrosis. Those who have ABPA can also have other allergic conditions such as atopic dermatitis (eczema), urticaria (hives), allergic rhinitis (hay fever) and sinusitis.

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John Harris, certified pollen and mold counter

and posted to the OAAC website and on social media.”

Why is there a difference between the OAAC’s count and other internet-based websites?

“OAAC counts are done by actually counting every pollen grain and mold spore collected on slides. Most internet-based websites forecast the allergy report based on an estimated guess,” said Lisa.

OAAC’s two pollen and mold counters use a sheet to mark each type of mold and pollen they see. There are 750,000 types of mold and 71,500 types of pollen. The count usually takes one to two hours but on high pollen and mold days, it can take four to five hours.

ABPA Symptoms

For those with asthma, the first symptoms include a progressive worsening of asthma symptoms – such as wheezing and shortness of breath. Coughing with brownish flecks or bloody mucous, fever and general weakness are also symptoms.

How is ABPA Diagnosed?

Diagnosis is determined by health history, x-rays or CT scans, allergy skin testing and/or blood tests.

ABPA Treatment and Management

It is difficult to avoid the fungus that causes a reaction so medication is typically prescribed for ABPA management. Asthma medications can help open airways and make it easier to cough and (continued on page 2)
Staff Spotlight with Marbi Symes

Marbi Symes is the Patient Accounts Supervisor of the Business Office. She is from Yukon and graduated from Yukon High School in 1984. She joined OAAC as a medical records clerk after graduating from high school. She has worked in several departments which included Reception, Patient Billing, and I.T.

“I worked several years as I.T. Support, but realized my true passion was with helping patients. I chose to step away from the technical side of the clinic, and resume my position in the Business Office,” Marbi said.

A typical business day starts with balancing daily entries, auditing accounts, and assisting patients to help them set up a payment plans. She assists other departments to help ensure patients have a positive experience with the OAAC and the billing department.

In her personal life, Marbi is married with 2 boys, ages 17 and 11. She married into a family where her husband is 1 of 17 children. “Being a part of a large family can be overwhelming at first, but there is never a dull moment,” she said.

“We are all very close and support each other in every part of our lives.”

What does she like best about working at the OAAC?

“We are like one big family. Many of us have been at the clinic for decades,” Marbi said. “Work is fun and you look forward to coming to work when you enjoy who you work with!”

ABPA...

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“Clear out the fungus. Medication usage depends upon the severity of the ABPA. Corticosteroids and antifungal therapy are commonly used.

For those who get diagnosed with ABPA, this condition should be monitored closely by your physician to prevent or minimize lung damage.

Flu Shot Time

Remember to get your flu vaccine this year. A flu vaccine called Fluzone High-Dose is available for adults age 65 and older. It typically has four times the antigen of a regular flu shot for a stronger immune response. Due to older adults potentially having weaker immune systems, adults age 65 and older are at greater risk than younger adults for getting flu-related complications.
Has your child ever had a second severe allergic reaction after the first episode? If so, new research published in the Annals of Allergy, Asthma and Immunology, offered clues as to why some children can experience a second-related reaction hours later, and what should be done about it.

Researchers looked at the records of 484 children who were admitted to an emergency department for anaphylaxis and then tracked to see if a second follow up reaction occurred. A delayed reaction happens when the initial symptoms of an allergic reaction subside, but then return without additional exposure, hours later.

“We found that 75 percent of secondary reactions occurred within the six hours of the first,” said Waleed Alqurashi, M.D., lead author of the study. “A more severe first reaction was associated with a stronger possibility of a second reaction. Children aged six to nine, children who needed more than one dose of epinephrine and children who do not get immediate epinephrine treatment were among the most likely to develop secondary reactions.”

Those children who had the second reaction had evidence of anaphylactic shock in the emergency department and required multiple doses of epinephrine and required multiple other therapies to treat the first reaction. At least half of the second reactions were considered serious and also required treatment with epinephrine.

“The key message here for patients, caregivers and first responders is to administer epinephrine at the first sign of severe allergic reaction to prevent anaphylaxis from worsening,” said James Sublett, M.D., American College of Allergy, Asthma and Immunology president. “Anaphylaxis symptoms occur suddenly and can progress quickly. Always have a second dose with you and, when in doubt, administer it too. Anaphylaxis can be fatal if left untreated.”

Symptoms of anaphylaxis can start off as mild, such as a runny nose, a skin rash or “feeling strange.” However, the symptoms can quickly escalate and lead to more serious problems such as trouble breathing, hives or swelling, tightness of the throat, nausea, abdominal pain or even cardiac arrest.

An emergency room visit for anaphylaxis should be followed up with a visit to an allergist for comprehensive follow up care and guidance. For more information, visit with your OAAC allergist.

**Allergy-Free Play Dough Recipe**

**Cornstarch Play Dough**

1 cup cornstarch  
1 lb. baking soda  
1 cup water  
1/8 tsp. oil  
Food coloring

In a large pot, combine ingredients. Cook over medium heat until “mealy.” Allow to cool on a plate, covered by a damp cloth. Knead well and store in an airtight container.

**Substitutions**

Use oil and food coloring that is safe for your allergy.

Source: Kids with Food Allergies