The Connection Between COPD and Weather

by ANGELA FINLAY

How the Weather Impacts COPD Symptoms

When seasons change or a front moves in, COPD patients are often the first to notice. Living with compromised airways makes you more sensitive to particles in the air, as well moisture content, air pressure, and temperature.

A big fluctuation can bring on a COPD exacerbation, but even relatively mild changes can lead to shortness of breath, increase in mucus, and a general feeling of discomfort from head to toe.

You may not be able to control the weather, but you can limit its unpleasant effects with a few careful adjustments. The first step is understanding your particular weather sensitivities, and how they link to common COPD triggers.

The Strain of Hot and Cold

When temperatures swing to either side of the thermometer, your respiratory system must work harder to pull in extra oxygen to keep your body at a healthy temperature. COPD causes airways and lungs to react more drastically to changes in air pressure and composition:

- **Extremes lead to exacerbations**. Some patients are more sensitive to temperature extremes than others, but experts insist that anything below freezing or above 90 degrees are bad for anyone living with COPD. Frigid temperatures tend to fatigue those with a chronic lung condition, wind can worsen COPD symptoms, and heat can cause your airways to inflame and constrict (which leads to bronchospasm).
- **Barometric pressure.** Not surprisingly, the weight of the atmosphere can have a fairly big impact on lung comfort. Barometric pressure is a way to calculate how heavy the air feels – that is, how much moisture is suspended in the air. Warm air holds more moisture than cold air, which means water molecules take up more space, leaving less room for oxygen molecules. So, on days with high barometric pressure, you will take in less oxygen which each breath.

How Lungs React to Moisture and Humidity

COPD reactions, like asthma attacks, are notoriously difficult to predict. Some find humid days more comfortable, while others breathe easier in warm, dry air, and although you could fall on either side of this equation, experts believe that minimal humidity is best for COPD patients. In the end, you should aim for a 40% humidity level (both inside and outside of your home), which will limit some common triggers, like:

- **Mold.** The Centers for Disease Control and Prevention report that those with COPD are more sensitive to mold, and humid air is the perfect breeding ground. Mold exposure can irritate the throat and lungs, lead to more wheezing and congestion, and worsen asthma symptoms.
- **Dust mites.** When humidity levels climb above 50%, dust mite populations grow. Most people with chronic lung disease will agree that dust is high on the list of triggers, so it’s important to do what you can to limit

the buildup.
- **Exertion.** Humid air has a high water content, which makes it denser, and harder to work. In very humid environments, every breath can become a conscious effort, as the lungs continue to resist airflow and act of inhaling continues to sap your energy.

Keeping humidity down is not as easy as you might imagine. Heating and cooling systems kick into gear when seasons change, and it can be difficult to detect relative humidity just by feeling alone. A humidity monitor is a great tool for COPD patients, and a simple addition to your home air management plan.

Next page: tips for coping with weather changes.

Tips to Help You Weather the Elements

You'll have to pay close attention to the weather for the good of your lungs, and sometimes that means you shouldn't interact with the great outdoors. But it's not always a good idea to shut yourself up inside, especially is your indoor space isn't quite as clean and clear as you would hope.

Get a handle on when to stay in, when to venture out, and how to counteract some of the discomforts that are impossible to avoid.

Perfect Your Timing

If weather alerts are on, it's best to stay inside, where you know the air is more comfortable to breathe. When you need to step out, you should plan around the early to late afternoon; mornings and evenings are generally cooler, and the air quality is often at its best.

In winter, it's a good idea to wait until the wind dies down, since a brisk breeze can challenge your airways as much as a fluctuation in temperature. Wrap a scarf around your face, and try to breathe through your nose to avoid shocking your airways.

Control Your Humidity

Air purifiers can help rid the air of all sorts of irritants, but a simple dehumidifier (or humidifier) may be all you need to breathe better at home. This is especially important when you live in a changeable climate, where severe winters and humid summers can send your humidity levels up and down.

Whichever model you choose, be sure to clean it regularly – as particles build up on the filter, and old water is left to sit in the reservoir, your device won't work as well (and might become a breeding ground for more irritants).

Turn up Your Air Conditioner

Cooler, drier air in your home can fight the effects of heavy humidity, but running an air conditioner also means that the windows and doors stay shut. Not only will this reduce the chances of mold spores and dust mites multiplying, you'll also limit the amount of outdoor irritants that make their way into your indoor space.

Not too long ago, doctors would often recommend a cross-country move for better breathing, but most experts today agree that the solution is not that simple. The fact that weather impacts lung disease is undeniable, but the *way* it affects each person's COPD can differ.

It's important that, above all else, you listen to your body and note how it your lungs react to various changes. Keeping track in a COPD journal may illuminate some triggers or potential sources of relief that you had not thought of before.