

**TeensHealth.org**

A safe, private place to get doctor-approved information on health, emotions, and life.

---

## Air Pollution and Asthma

### How Does Air Quality Affect People With Asthma?

People with asthma are more likely to have trouble breathing in places with polluted air or smog. Poor air quality can cause flare-ups, and also may increase the chances of respiratory infections, like flu, that can make asthma symptoms worse.

### What Makes Air Quality Poor?

You've probably heard about the ozone layer and how we need to protect it. The ozone layer is up high in the atmosphere and protects us from the sun's rays. But there's a different layer of ozone closer to the ground called ground-level ozone.

**Ground-level ozone** forms when chemicals from cars, power plants, and factories mix with sunlight. This "ozone pollution" is a main part of smog — the brownish-yellow haze often seen hanging over cities on the horizon. It can irritate the lungs and cause breathing problems.

**Particle pollution** also makes the air dirty. Particle pollution is created when tiny bits of dust, dirt, smoke, soot, and other stuff hang in the air. The smaller the particles, the deeper they can get into the lungs and cause breathing problems.

### How Can I Deal With Poor Air Quality?

If air pollution is a trigger for you, you'll want to avoid it as much as possible. Talk to your doctor about what to add to your asthma action plan.

You can track air quality at the website AIRNow. The EPA created the site to help people affected by air pollution decide whether they need to stay inside. The system is color coded —green or yellow means it's OK to be outside; orange, purple, or maroon mean you should stay indoors. You can also get air quality information from weather reports and apps.

On days when air quality is bad:

- Run the air conditioner, which filters the air.
- Plan any outdoor activities for early in the day, when air quality tends to be better.
- Don't spend time in places where there's lots of traffic.
- If you play a sport that has practices outdoors during hot weather, talk to your coach about what you can do to stay out of dirty air. This might mean you need to work out in an air-conditioned gym or miss some practices.

Your doctor might have more ideas on how to handle smog or poor air quality. No matter what, be sure to always have your quick-relief medicine with you, just in case you need it.

**Reviewed by:** Elana Pearl Ben-Joseph, MD

Date reviewed: May 2017

---

Note: All information on TeensHealth® is for educational purposes only. For specific medical advice, diagnoses, and treatment, consult your doctor.

© 1995-2019 The Nemours Foundation. All rights reserved.

Images provided by The Nemours Foundation, iStock, Getty Images, Veer, Shutterstock, and Clipart.com.