How is the Air Treating You?

Thursday, January 19, 2023
7:00-8:00 p.m. ET

Presented by:
Sheila Caldwell, BSN, RN, CSN, FNASN
NEA ESPQ SISP Fellow
Objectives

• Attendees will understand basic anatomy and functions of the Respiratory System
• Attendees will learn about “air” issues
• Attendees will be able to list 2-3 conditions that affect the Respiratory System
• Attendees will learn some treatment options
• Attendees will be provided with resources concerning “air” issues
UPPER RESPIRATORY SYSTEM

www.visiblebody.com
https://www.timetoast.com/timelines/industrialization-in-america
# Coronavirus Symptoms

<table>
<thead>
<tr>
<th></th>
<th>COVID-19</th>
<th>Allergies</th>
<th>Influenza</th>
<th>Common Cold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Cough</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
</tr>
<tr>
<td>Shortness of Breath</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Muscle Aches</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Sore Throat</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>COMMON</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Congestion</td>
<td>SOMETIMES</td>
<td>COMMON</td>
<td>SOMETIMES</td>
<td>COMMON</td>
</tr>
<tr>
<td>Loss of Smell</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Runny Nose</td>
<td>SOMETIMES</td>
<td>COMMON</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Sneezing</td>
<td>SOMETIMES</td>
<td>COMMON</td>
<td>SOMETIMES</td>
<td>SOMETIMES</td>
</tr>
<tr>
<td>Itchy Eyes</td>
<td>COMMON</td>
<td>COMMON</td>
<td>COMMON</td>
<td>SOMETIMES</td>
</tr>
</tbody>
</table>


Symptoms may vary from person to person and may range from mild to severe. Symptoms usually occur from 2-14 days after exposure. If you have a cough with fever or shortness of breath, call your physician’s office BEFORE visiting.
Hay Fever

If you sneeze a lot, if your nose is often runny or stuffy, or if your eyes, mouth or skin often feels itchy, you may have allergic rhinitis, a condition that affects 40 million to 60 million Americans.
WEAR A MASK
N95, KN95, KF94 or double-mask, especially indoors.

VENTILATE
Gather outdoors. If indoors: open windows & doors, use fans & air filters.

AVOID CROWDS

RAPID TEST
before gathering; stay home if positive or sick and tell your provider.
**Fine particles** pollution can cause:
- Shortness of breath
- Wheezing, coughing
- Chest pain
- Fatigue

Fine particles can make these conditions **worse**:
- Cardiovascular and heart disease
- Asthma and COPD

**Ground-level ozone** pollution can cause:
- Difficulty breathing deeply
- Shortness of breath
- Sore throat
- Wheezing, coughing
- Fatigue

Ozone can make these conditions **worse**:
- Asthma and COPD
- Emphysema

https://www.pca.state.mn.us/air-water-land-climate/air-quality-and-health
Particle levels can be elevated indoors, especially when outdoor particle levels are high. Certain filters and room air cleaners can help reduce indoor particle levels. You also can reduce particle levels indoors by not smoking inside, and by reducing your use of other particle sources such as candles, wood-burning stoves, and fireplaces.

How can the Air Quality Index help?
In many areas, local media provide air quality forecasts telling you when particle levels are expected to be unhealthy. Forecasts use the same format as EPA's Air Quality Index, or AQI, a tool that state and local agencies use to issue public reports of actual levels of particles, ground-level ozone, and other common air pollutants.

Using the AQI’s color-coded scale, these forecasts help you quickly learn when air pollution is expected to reach unhealthy levels in your area. In the newspaper forecast below, for example, the black arrow points to the “orange” range, indicating that particle levels are expected to be unhealthy for sensitive groups. On television, you might hear a meteorologist say something like this: “Tomorrow will be a code orange air quality day, with particle pollution at levels that are unhealthy for sensitive groups. If you have heart or lung disease, or if you’re an older adult or child, you should plan strenuous activities for a time when air quality is better.”

![AQI Chart](https://www.airnow.gov/sites/default/files/2018-03/pm-color.pdf)

**AIR QUALITY INDEX FOR PARTICLE POLLUTION**

<table>
<thead>
<tr>
<th>Air Quality Index</th>
<th>Air Quality</th>
<th>Health Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 50</td>
<td>Good</td>
<td>None</td>
</tr>
<tr>
<td>51 to 100</td>
<td>Moderate</td>
<td>Unusually sensitive people should consider reducing prolonged or heavy exercise.</td>
</tr>
<tr>
<td>101 to 150</td>
<td>Unhealthy for Sensitive Groups</td>
<td>People with heart or lung disease, older adults, and children should reduce prolonged or heavy exercise.</td>
</tr>
<tr>
<td>151 to 200</td>
<td>Unhealthy</td>
<td>People with heart or lung disease, older adults, and children should avoid prolonged or heavy exercise. Everyone else should reduce prolonged or heavy exercise.</td>
</tr>
<tr>
<td>201 to 300</td>
<td>Very Unhealthy</td>
<td>People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exercise.</td>
</tr>
</tbody>
</table>

**AIRNOW**

AIRNOW ([www.epa.gov/airnow](http://www.epa.gov/airnow)) is a Web site that gives daily information about air quality, including ground-level ozone and particles, and how they may affect you. AIRNOW contains:

- Real-time particle levels for many locations.
- Air quality forecasts for many cities across the country.
- Kids’ Web page and associated teacher curriculum.
- Smoke Web page.
- Links to state and local air quality programs.
- Ideas about what you can do to reduce particles. For example, you can keep your car, boat, and other engines well-tuned, and avoid using engines that smoke. You can also participate in local energy conservation programs.

*Photo courtesy of The Weather Channel.*

[Office of Air and Radiation](http://www.epa.gov/air)

September 2003

EPA 452/R-03-011

Current Air Quality 7 PM EST Jan 18
32 NowCast AQI PM2.5
Good Good

Data courtesy of District of Columbia - Department of Energy and Environment
Maryland Department of the Environment
Find out more about what our regional offices are doing for environmental justice in your community!

Region 1 (CT, MA, ME, NH, RI, VT)
5 Post Office Square - Suite 100
Boston, MA 02109
Phone: 617-918-1111

Region 2 (NY, NJ, PR, VI)
290 Broadway, 26th Floor
New York, NY 10007
Phone: 212-637-3000

Region 3
(MD, DE, DC, PA, VA, WV)
1650 Arch Street
Philadelphia, PA 19103
Phone: 215-814-5000

Region 4
(AL, FL, GA, KY, MS, NC, SC, TN)
61 Forsyth Street, SW
Atlanta, GA 30303
Phone: 404-562-9900

Region 5 (IL, IN, MI, MN, OH, WI)
77 West Jackson Blvd. (MC T-175)
Chicago, IL 60604-3507
Phone: 312-353-2000

Region 6 (AR, LA, NM, OK, TX)
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733
Phone: 214-665-2200

Region 7 (IA, KS, MO, NE)
11201 Renner Blvd.
Kansas City, KS 66219
Phone: 913-551-7003

Region 8 (CO, MT, ND, SD, UT, WY)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6312

Region 9
(CA, AZ, HI, NV, Pacific Islands)
75 Hawthorne Street
San Francisco, CA 94105
Phone: 415-947-8000

Region 10 (AK, ID, OR, WA)
1200 Sixth Ave (MD-142)
Seattle, WA 98101
Phone: 206-553-1200