Outdoor Air Quality and Early Childhood

Infants and very young children are at extra risk for the harmful effects of air pollution because they breathe faster and their brains, lungs, and immune systems are still developing. Air pollutants interact with allergens, viruses, diet, and other factors that affect children’s health.

Too much time in polluted air can:

- Reduce lung growth and function, worsen symptoms of asthma and cystic fibrosis, increase cough, and bronchitis
- Harm nervous system development and behavior, especially when exposed to chemicals in air pollution like mercury and lead
- Increase risk of death from lung infections and sudden infant death syndrome (SIDS) in the youngest infants

The Air Quality Index (AQI) is a number for reporting how clean or unhealthy your air is every day. You can find it on the Internet at AirNow.gov. It’s also reported in local news sources:

<table>
<thead>
<tr>
<th>When AQI is:</th>
<th>You and your very young child should:</th>
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</thead>
<tbody>
<tr>
<td>1–50</td>
<td>Enjoy usual outdoor activities</td>
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<tr>
<td>51–100</td>
<td>Limit time outdoors</td>
</tr>
<tr>
<td>101–150</td>
<td>Infants and toddlers play indoors</td>
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<tr>
<td>151–200</td>
<td>Plan necessary outdoor activities in the morning, when air quality is usually better</td>
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<tr>
<td>201–300</td>
<td>Traffic pollution is harmful even when AQI is good</td>
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</tbody>
</table>

Traffic pollution is harmful even when AQI is good. If you can, avoid outdoor air in places with a lot of traffic.
What causes poor air quality outdoors?

- Smoke stacks
- Wood burning — inside or outside
- Cars and trucks
- Blowing dust

**Particulate matter** is tiny particles in the air like dust, dirt, soot, and smoke. In northern Utah, particulate matter is more common in winter months.

**Ground-level ozone** is a colorless gas. It forms when polluted air comes in contact with heat and sunlight. It’s more common in summer and in late afternoon.

What can you do to help? Drive less. Carpool or take public transit.

What causes poor air quality indoors? What can I do to help?

- **Wood burning — inside or outside.** Don’t burn wood, trash, or plastics
- **Cigarette smoke.** Don’t smoke. Stay away from others who are smoking.
- **Paint fumes.** Use “zero VOC” or “no VOC” paint.
- **Cleaning chemicals.** Use natural cleaning products.
- **Carbon monoxide (CO) from fuel-burning appliances.** Put a CO alarm in your home.

Other things you can do to help

- **Parents and care givers** need to pay attention to the child’s symptoms when outdoors. Look for coughing, wheezing, and watery eyes. Know when to bring the child indoors.
- **Pay attention to the air inside your home.** Because very young children spend most of their time indoors, learn more about what you need to do to make sure your indoor air is clean.
- **For children with asthma:** If your child is using albuterol more often, stay indoors. Ask your doctor if air pollution may be playing a role in your child’s asthma.