# **Smoke and Health Effects In Children**

### WHY ARE CHILDREN CONSIDERED SENSITIVE?

- Children's airways are narrower than those of adults; therefore irritation that would create minor problems for an adult may result in significant obstruction in the airways of a child.
- > Children's lungs are still developing, making them more susceptible.
- > They tend to spend more time outside.
- > They engage in more vigorous activity.
- They inhale more air (and therefore more particles) per pound of body weight.

### WHAT ARE SOME SIGNS THAT A CHILD IS BEING AFFECTED BY SMOKE?

- Persistent coughing
- Runny nose
- Wheezing
- Difficulty breathing
- Dizziness
- Burning or irritated eyes

### WHAT ARE THE RESULTS OF EXPOSURE?

- Respiratory symptoms and decreased lung function in children. These can result in school absences and limitations of normal childhood activities.
- > Eye and respiratory tract irritation.
- **Exacerbation of asthma.**

#### AIR QUALITY HOTLINE: 447-1644

Gives general information. Use visibility to determine the current air quality conditions.

### **HELPFUL WEBSITES:**

http://www.deq.mt.gov/FireUpdates/RelevantLinks.asp http://www.deq.mt.gov/ http://airnow.gov/ http://www.co.lewis-clark.mt.us/



The onset of symptoms can appear as late as 24 to 48 hours after exposure.

# **Strategies For Reducing Exposure And Coping With Forest Fire Smoke**

- > Stay indoors with windows closed if possible.
- > Use an air conditioner to cool your home, if possible.
- Use an air filter if one is available for the air intake of your air conditioner or furnace. Clean or change your filter!
- Use an interior air cleaner with a fiber or fabric filter, or use an electronic air cleaner.
- > While driving, keep your windows closed and use the air conditioner.
- Reduce your activity level to the greatest extent possible.
- Avoid other sources of air pollution such as smoking, burning candles or incense, and stoves or furnaces.
- Wear a fitted mask that can filter particles from 0.3 to .01 microns in size. The mask must have an airtight seal to be effective for smoke.
- If possible, go to a clean-air shelter like a commercial building, a library or other air-conditioned or filtered place.
- If you must, leave the area and stay with friends or family in an area with no smoke.

### AIR QUALITY HOTLINE: 447-1644

### FOR MORE INFORMATION:

Lewis and Clark City-County Health Department 316 North Park Avenue Helena, MT 59623 447-8351



# **Judging the Health Effects of Smoke Using Visibility**

Some communities have air quality programs and use monitoring equipment to determine whether air quality is poor or good. If air quality monitoring equipment is not available in your area, you use visibility as a good substitute.

The following guidelines for visibility are based on Montana Department of Environmental Quality recommendations are available for viewing on-line at http://www.deg.mt.gov/FireUpdates/VisibilitvRanges.asp.

### VISIBILITY CHART AND **ACTIVITY LEVEL RECOMMENDATIONS**

AQI Level	Visibility (miles) <sup>4</sup>	Activity Level Recommendations
Good	10 miles and up	Enjoy outdoor activities
Moderate	6 to 9 miles	Very sensitive individuals should limit strenuous outdoor activities
Unhealthy for Sensitive Groups	3 to 5 miles	Sensitive groups should limit strenuous or prolonged outdoor activities and stay inside if possible
Unhealthy for All Groups	1.5 to 2.5 miles	Sensitive groups should avoid strenuous or prolonged outdoor activities and stay inside if possible; others should limit prolonged exertion outdoors
Very Unhealthy	0.9 to 1.4 miles	All groups should avoid outdoor activity and remain inside if possible
Hazardous	0.8 miles or less	All groups should avoid outdoor activity and remain indoors

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LEWIS & CLARK CITY-COUNTY Health Department