From the Wyoming Department of Health

OZONE FACT SHEET

WHAT IS OZONE?

- The ozone layer, miles above the surface of the earth, protects us from cancer-causing solar ultraviolet radiation.
- Ground level ozone is formed through a complex chemical reaction involving hydrocarbons, nitrogen oxides and sunlight when weather conditions are optimal.
- Increased ground level ozone may cause shortness of breath, coughing, wheezing, and eye, nose and throat irritation. It is especially dangerous to older adults, children, asthmatics and persons with other chronic respiratory ailments.

WHO IS AT RISK?

- When ozone levels are significantly elevated everyone who works, plays or spends time outdoors may feel some symptoms. However, these effects are increased for children, the elderly, and people with asthma and chronic respiratory ailments.
- Some healthy people may be more sensitive to the effects of ozone than the average person.

ASTHMATICS

- Ozone can aggravate asthma, causing more asthma attacks, increased use of medication, more medical treatment and more visits to hospital emergency rooms.

CHILDREN

- Pound for pound, children breathe more air (and ozone) than adults.
- Children may spend more time outdoors playing than adults.
- Children's respiratory systems are still developing, and children are more likely to have asthma.

ELDERLY

- Ozone presents an increased risk to the elderly because it can aggravate pre-existing respiratory diseases.
- The elderly may experience reduced sensitivity to symptoms of ozone; therefore, early warning signs of the harmful effects of ozone may be ignored.

PROTECT YOURSELF

- Your chances of being affected by ozone increase the longer you are active outdoors and the more strenuous your activity.
- Individuals with asthma, other respiratory diseases, and persons particularly sensitive to ozone, should be aware that on high ozone days they are more likely to experience shortness of breath, coughing, wheezing, and eye, nose and throat irritation.
- Air pollution advisories may be called when weather forecasters predict weather conditions likely to cause high ozone.
- People at risk should try to limit their time outdoors and limit strenuous activity on high-ozone days.
- Those experiencing symptoms such as tightness in the chest, coughing, wheezing and shortness of breath should consult a medical professional.

For more information visit these related websites:

http://www.epa.gov/Ozone/ and http://deq.state.wy.us/

US EPA Color Codes Corresponding to Ground Level Ozone Concentrations (US EPA 1999b with modifications).
Adapted from the North Carolina Department of Health and Human Services, Division of Public Health

AIR QUALITY CATEGORY	**0ZONE 8 –HR (ppm)**	**Air Quality Index (AQI)**	**COLOR CODE**	**HEALTH EFFECTS AND ADVICE**
GOOD	0.00-0.064	0-50	GREEN	No adverse health effects expected
MODERATE	0.065-0.084	51-100	YELLOW	Unusually sensitive groups -possible cough and painful breathing -consider limiting prolonged outdoor exertion
UNHEALTHY FOR SENSITIVE GROUPS	0.085-0.104	101-150	ORANGE	Sensitive groups (i.e, children, adults active outdoors, people with respiratory disease, people unusually susceptible) -possible cough, painful breathing, and decreased lung function -should limit prolonged outdoor exertion
UNHEALTHY	0.105-0.124	151-200	RED	Sensitive groups -probable cough, painful breathing, and decreased lung function -avoid prolonged outdoor exertion Healthy population -possible cough, painful breathing, and decreased lung function -limit prolonged outdoor exertion
VERY UNHEALTHY	0.125	201-300	PURPLE	Sensitive and healthy individuals likely to experience moderate to severe effects like cough, painful and impaired breathing, and decreased lung function Sensitive groups -avoid outdoor exertion Healthy population -limit outdoor exertion