

MONTEREY COUNTY



DEPARTMENT OF HEALTH LEN FOSTER, Director

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Health Advisory

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From: Hugh F. Stallworth, MD, MPH
Health Officer 755-8942

Lisa B. Hernandez, MD, MPH
Deputy Health Officer 755-4585

Health Concerns of the Wildfire

This advisory should help you address certain health concerns your patients might have.

The fires burning in Monterey County are expected to continue to burn for several more weeks. You may have patients or clients who are concerned about the affect of the smoke on their health or the health of their loved ones.

Smoke

Smoke is composed primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organic chemicals, nitrogen oxides, trace minerals and several thousand other compounds. The actual composition of smoke depends on the fuel type, the temperature of the fire, and the wind conditions. Different types of wood and vegetation are composed of varying amounts of cellulose, lignin, tannins and other polyphenolics, oils, fats, resins, waxes and starches, which produce different compounds when burned.

The behavior of smoke depends on many factors, including the fire's size and location, the topography of the area and the weather. Smoke levels are unpredictable: a wind that usually clears out a valley may simply blow more smoke in, or may fan the fires, causing a worse episode the next day. Smoke concentrations change constantly. By the time officials issue a warning or advisory, the smoke may already have cleared. Locally, the Monterey Bay Unified Air Pollution Control District is responsible for air quality. The District monitors the air quality and issues public information if needed.

Health Issues

Wildfire smoke contains significant quantities of respiratory irritants. Formaldehyde and acrolein are two of the principal irritant chemicals that add to the cumulative irritant properties of smoke, even though the concentrations of these chemicals individually may be below levels of public health concern.

Health Alert: Warrants immediate action or attention. **Health Advisory:** Provides information for a specific incident or situation; may not require immediate action. **Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action.

One concern that may be raised by members of the general public is whether they run an increased risk of cancer or other long-term health impacts of exposure to wildfire smoke. People exposed to toxic air pollutants at sufficient concentrations and durations may have slightly increased risks of cancer or other chronic health problems. However, in general, the long-term risk from short-term smoke exposure is quite low.

Sensitive Populations

Not everyone who is exposed to thick smoke will have health problems. The level and duration of exposure, age, individual susceptibility, including the presence or absence of pre-existing lung or heart disease, and other factors play significant roles in determining whether or not someone will experience smoke-related health problems.

Individuals with heart or lung disease, such as congestive heart failure, angina, COPD, emphysema or asthma, are at a higher risk of having health problems.

Older adults are more likely to be affected by smoke, possible because they are more likely to have heart or lung disease than younger people.

Children are more likely to be affected by health threats from smoke because their airways are still developing and because they breathe more air per pound of body weight. Children are also more likely to be active outdoors

People who smoke, especially those who have smoked for many years, may have compromised lung function. However, due to adaptation of their lungs to ongoing irritation, smokers are less likely to report symptoms from exposure to irritants, than nonsmokers.

Advise individuals with asthma, bronchitis, emphysema and other lung or heart disease to make sure that they take their medication and have at least a five-day supply on hand. Individuals with asthma should consult their physician about an asthma management plan and stick to it during the unusually smoky conditions.

Recommendations

When smoke is present, people with pre-existing health conditions that could be irritated by the smoke should:

- Reduce outside activities; remain indoors as much as possible with doors and windows closed
- Limit physical activity.
- Drink plenty of liquids.
- Consider using an over-the-counter nasal moisturizing spray (saline).
- Consider using a High Efficiency Particulate Air (HEPA) room filtration unit.
- Leave the area temporarily

A fact sheet about smoke and its effects on health for your concerned patients is also with this advisory.

Resource Links

Monterey County Fire Information: http://www.co.monterey.ca.us/PR_OES/default.asp

Monterey Bay Unified Air Pollution Control Board: <http://www.mbuapcd.org/>

Centers For Disease Control Wildfire Information: <http://emergency.cdc.gov/disasters/wildfires/>

Californian Office of Emergency Services: <http://www.oes.ca.gov/>

National Weather Service: <http://www.wrh.noaa.gov/>

U.S. Environmental Health Protection Agency Air Quality Website: <http://www.airnow.gov/>

Wildfires – Smoke Fact Sheet

June 16, 2008

Not everyone who is exposed to smoke will have health problems. The level and duration of exposure, age, individual vulnerability, including presence or absence of pre-existing lung or heart disease, and other factors play major roles in determine whether or not some one will experience smoke related health problems.

If you are concerned or are experiencing increased symptoms, please contact your healthcare provider.

What is smoke?

Smoke is a mixture of gases, and fine particles from burning trees and other plant materials. Smoke can irritate your eyes and respiratory system and worsen chronic heart and lung diseases.

How can you tell if the smoke is affection you?

Smoke can cause:

- Coughing
- Irritated Sinuses
- Chest pain
- Stinging eyes
- Aggravated asthma symptoms
- A scratchy throat
- Shortness of breath
- Headaches
- A runny nose

If you have heart or lung disease, smoke might make your symptoms worse

People who have heart disease might experience:

- Chest pain
- Rapid Heartbeat
- Shortness of breath
- Fatigue

Smoke may worsen symptoms for people who have pre-existing respiratory conditions such as, asthma, respiratory allergies and chronic obstructive pulmonary disease (COPD), in the following ways:

- Inability to breathe normally
- Cough with or with out mucus
- Wheezing and shortness of breath



Know whether you are at risk

If you have heart or lung disease, such as congestive heart failure, angina, COPD, emphysema or asthma, you are at a higher risk of having health problems.

Older adults are more likely to be affected by smoke, possible because they are more likely to have heart or lung diseases than younger people.

Children are more likely to be affected by health threats from smoke because their airways are still developing and because they breathe more air per pound of body weight. Children are also more likely to be active outdoors

People who smoke, especially those who have smoked for many years, have already compromised lung function. However, due to adaptation of their lungs to ongoing irritation, smokers are less likely to report symptoms from exposure to irritants, than nonsmokers.

Protect yourself

Limit your exposure to smoke. Following are ways to protect your health:

Pay attention to local air quality reports. Listen and watch for news or health warnings about smoke

If you are advised to stay indoors, keep indoor air as clean as possible. Keep windows and doors closed.

Do not add to indoor pollution. When smoke levels are high, do not use anything that burns such as candles, fireplaces or gas stoves.

Follow your doctor’s advice about medicines and your respiratory management plan if you have asthma or another lung disease. Call your doctor if your symptoms worsen.

Get more information

Listen and watch local news for information on air quality and the wildfires.



FOLLETO INFORMATIVO

Incendios destructivos

Riesgo de salud por exposición al humo

El humo de los incendios destructivos está compuesto de una mezcla de gases y partículas microscópicas que se desprenden de la vegetación en llamas. El humo puede afectar los ojos, irritar el sistema respiratorio y agravar las condiciones de aquéllos que padecen de enfermedades cardíacas y pulmonares crónicas.

¿Cómo saber si me afecta el humo?

El humo puede causar:

- Tos
- Irritación en la garganta
- Irritación de los senos nasales
- Falta de aire
- Dolor de pecho
- Dolor de cabeza
- Irritación en los ojos
- Goteo de nariz

Si padece de alguna enfermedad cardíaca o pulmonar, el humo podría empeorar sus síntomas.

Las personas que padecen de alguna enfermedad cardíaca podrían experimentar:

- Dolor de pecho
- Pulso acelerado
- Falta de aire
- Fatiga

El humo puede empeorar los síntomas de aquellas personas que padecen de afecciones respiratorias preexistentes, tales como alergias respiratorias, asma y la enfermedad pulmonar obstructiva crónica (EPOC), en cuyo caso podrían experimentar:

- Dificultad para respirar normalmente
- Tos seca o con flema
- Molestias en el pecho
- Respiración con silbido y falta de aire

Cuando la concentración de humo se eleva demasiado, incluso las personas saludables podrían presentar algunos de los síntomas antes mencionados.

Incendios destructivos

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Sepa si corre algún riesgo

Si padece de alguna afección cardíaca o pulmonar como insuficiencia cardíaca congestiva, angina, enfermedad obstructiva pulmonar crónica, enfisema o asma, usted corre mayor riesgo de sufrir problemas de salud que una persona saludable.

Los ancianos tienen mayor posibilidad de verse afectados por el humo, tal vez porque es más probable que padezcan de enfermedades cardíacas o pulmonares que los más jóvenes.

Los niños corren mayor riesgo de salud por exposición al humo debido a que sus vías respiratorias aún están en desarrollo y respiran más aire por libra de peso corporal que un adulto. Los niños, además, tienden a ser más activos al aire libre.

Protéjase

Limite su exposición al humo. Siga las siguientes recomendaciones para proteger su salud:

Preste atención a los informes locales sobre la calidad del aire. Esté atento a las noticias o alertas de salud relacionadas con el humo. Averigüe también si su comunidad distribuye informes sobre el índice de calidad del aire de la Agencia de Protección Ambiental, y manténgase al tanto de los mensajes de salud pública sobre medidas adicionales de seguridad.

Utilice guías basadas en la visibilidad si se encuentran disponibles. No todas las comunidades cuentan con un medidor de las partículas que hay en el aire. En la zona oeste de los Estados Unidos, algunas comunidades se sirven de guías para estimar el índice de calidad del aire basadas en la visibilidad en el horizonte.

Si se le recomienda permanecer adentro, mantenga el aire interior tan limpio como sea posible. Mantenga puertas y ventanas cerradas a menos que el clima esté extremadamente caluroso. Utilice el aire acondicionado, si cuenta con uno, pero cierre la entrada de aire fresco y mantenga el filtro limpio para evitar que entre el humo de afuera. Si no cuenta con un aire acondicionado y hace mucho calor adentro con las ventanas cerradas, refúgiense en otro lugar.

Utilice un filtro de partículas de aire de alta eficiencia (HEPA) para disminuir los problemas respiratorios. Un filtro de este tipo puede reducir el número de partículas irritantes presentes en el aire dentro de su hogar.

No aumente la contaminación en los espacios cerrados. Cuando la concentración de humo aumente, no utilice velas, chimeneas, estufas a gas ni ningún elemento que arda. No pase la aspiradora puesto que levanta partículas ya presentes en su hogar. No fume ya que con ello aumentará la contaminación del aire.

Si sufre de asma o de alguna otra enfermedad pulmonar, siga las instrucciones de su médico en cuanto a medicamentos y su plan de control del asma. Llame a su médico si sus síntomas empeoran.

Las mascarillas para polvo no son suficientes. Las mascarillas de papel contra el polvo que venden en las ferreterías sirven para atrapar partículas más grandes, tales como el aserrín. Estas mascarillas no protegerán a sus pulmones del humo. Para mayor información sobre mascarillas eficaces, diríjase a la siguiente página del CDC: Instituto Nacional de Salud y Seguridad Ocupacional (www.cdc.gov/niosh/npptl/npptlrespfact.html) (en inglés).

Incendios destructivos

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Evacuación segura

Durante la evacuación y su posterior regreso a casa, sea cuidadoso y tome las mismas medidas de seguridad que tomaría en situaciones en que no hay emergencias: abróchese el cinturón de seguridad y no beba mientras maneje. Para mayor información, vea el folleto informativo de CDC sobre riesgos de conducir bajo la influencia del alcohol o narcóticos (www.cdc.gov/ncipc/factsheets/driving.htm) (en inglés).

Asimismo, asegúrese de que los niños tengan el cinturón bien abrochado y que se sienten en la parte trasera del auto. Para mayor información refiérase al folleto informativo de CDC sobre seguridad del niño pasajero (www.cdc.gov/ncipc/factsheets/childpas.htm) (en inglés).

Cortes eléctricos

Los apagones pueden convertirse en algo más que un inconveniente. Haga clic en la página de recursos sobre "Lo que necesita saber en caso de un corte inesperado de la electricidad" (www.bt.cdc.gov/poweroutage/espanol) para obtener más información sobre seguridad de los alimentos, agua potable, riesgos del cableado eléctrico y más.

Para más información, visite www.bt.cdc.gov o llame a la línea de ayuda de los CDC para información al público al (888) 246-2857 (español), (888) 246-2675 (inglés), ó (866) 874-2646 (TTY).

30 de octubre del 2003

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