Healthy Oregon

Caring for Vulnerable Persons During a Heat Wave

Having a health emergency?
Call 911 and contact your doctor.

Talking to patients during routine visits about how they can prevent heat-related illness can go a long way toward avoiding such illnesses. Simple steps can make a big difference, particularly for high-risk patients. These steps include:

- Staying in cool, air-conditioned places;
- Limiting strenuous outdoor activities; and
- Keeping well hydrated.

Here are some simple steps you can take to help your high-risk patients:

- Identify cool, air-conditioned public places in your community, and tell your at-risk patients about them. This helps them to help themselves when things get too hot at home.
- Tell them about the warning signs of heat stroke, heat exhaustion, or complications of chronic illness that might be triggered by extreme heat. This helps patients recognize when they are in trouble and get assistance if they need it.

While heat-related illness can strike anyone under the wrong circumstances, certain people are at higher risk. Older adults, infants, pregnant or breast feeding women, and those who are sick or overweight are more likely to become ill in extreme heat events.

Conditions that put people at increased risk during heat waves

<table>
<thead>
<tr>
<th>Chronic Illness</th>
<th>Heart disease, high blood pressure, diabetes, cancer or kidney disease, alcohol and other substance use, mental illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions that impair sweating</td>
<td>Heart disease, dehydration, extremes of age, skin disorders (including sunburn, prickly heat and excessive scarring and burns), congenital impairment of sweating, cystic fibrosis, quadriplegia, scleroderma, people taking medications with anti-cholinergic effects</td>
</tr>
<tr>
<td>Acute illness</td>
<td></td>
</tr>
<tr>
<td>Impaired activities of daily living</td>
<td>Poor mobility, cognitive impairment</td>
</tr>
<tr>
<td>Social factors</td>
<td>Living alone or socially isolated, low socioeconomic status, homelessness</td>
</tr>
<tr>
<td>Occupation/recreation</td>
<td>Exercising vigorously in the heat or working in a hot environment</td>
</tr>
</tbody>
</table>

Source: Victoria Australia State Government, 2010
Caring for Vulnerable Persons During a Heat Wave

Medications and heat waves

Some medications can increase the risk of heat-related illness or may be less effective or more toxic when exposed to high temperatures. Care planning for vulnerable patients during hot weather should include consultation with a health care provider or pharmacist about the use and storage of medications.

Mechanisms for medication increasing the risk of heat-related illness

- **Reduced vasodilatation**: Beta-blockers
- **Decreased sweating**: Anticholinergics; e.g., tricyclic antidepressants and benzotropine, beta blockers, antihistamines, phenothiazines
- **Increased heat production**: Antipsychotic drugs; e.g., risperidone, olanzapine. Stimulants; e.g., amphetamine, cocaine
- **Decreased thirst**: Butyrophenones; e.g., haloperidol and droperidol. Angiotenins-converting enzyme (ACE) inhibitors
- **Dehydration**: Diuretics, alcohol
- **Aggravation of heat illness by worsening hypotension in vulnerable patients**: Vasodilators, e.g., nitrates, calcium channel blockers, other anti-hypertensives
- **Increased toxicity for drugs with a narrow therapeutic index in dehydration**: Digoxin, lithium, warfarin

Source: Victoria Australia State Government, 2010

Is your practice ready for a heat wave?

Providing a cool waiting room with readily available drinking water puts you and your patients in a good position to deal with a heat wave. Likewise, ensure clinic personnel are protected from heat-related illness with blinds closed to block the sun, water breaks as needed for staff, and a response plan in case power goes out.

For more information, see If You Can’t Stand the Heat, Find an Air Conditioner, the June 7, 2011, issue of the Public Health Division’s CD Summary, available at http://healthoregon.org/cdsummary.

Helpful documents
- FEMA – First Aid for Heat-Induced Illnesses
- CDC – Personal safety in extreme heat
- New York City Health Department – Heat-related morbidity and mortality information for health care providers (PDF)

Healthy Oregon