



Philadelphia Department of Public Health
Division of Disease Control

DONALD F. SCHWARZ, MD, MPH
Deputy Mayor, Health & Opportunity
Health Commissioner

NAN FEYLER, JD, MPH
Chief of Staff

CAROLINE C. JOHNSON, MD
Director, Division of Disease Control

Health Alert
Extreme Heat Advisory
July 7, 2010

The eastern United States is dealing with the second heat wave of the summer. Temperatures during the current heat wave have already exceeded 100° F, and high temperatures are expected to continue to approach 90° F through early next week. Several Philadelphians have already died as a result of the extreme heat. As a healthcare provider, there are a number of things you can do to help ensure that your patients stay safe during extreme heat events.

During a heat wave, health care providers should:

- Monitor extreme weather alerts from the National Weather Service and the Philadelphia Department of Public Health.
- Advise high-risk patients to use an air conditioner or get to an air-conditioned place.
- Be alert to heat-related illness or exacerbation of chronic medical conditions, such as heart or lung disease.
- Engage family members or other support networks to check on at-risk patients frequently.

Individuals at greatest risk include:

- Persons over age 65
- Persons with chronic physical or mental health conditions
- Those taking certain medications (see attached flyer)
- Those living alone or with decreased mobility
- Pregnant women
- Small children
- Those who work in high heat environments
- Those engaged in strenuous physical activity

Signs and symptoms of heat exhaustion and heat stroke include:

- Dizziness or syncope
- Muscle cramps
- Cool, moist skin, or dry, hot skin
- Nausea or vomiting
- Headache
- Rapid, shallow breathing
- Impaired judgment
- Bizarre behavior or altered mental state
- Hallucinations
- Coma

Be sure to:

- Counsel your at-risk patients on the importance of staying cool during hot weather.
- Be alert to heat-related illness or exacerbation of chronic medical conditions.
- Advise at-risk patients to use their air conditioner or go to a place with air conditioning. To find a cooling center in Philadelphia, call the Heatline at **215-765-9040**, or visit **www.pcacares.org**.
- Engage family members or other support networks to frequently check on at-risk patients.
- Display or distribute the attached flyer in your patient waiting areas and to at-risk patients.

Message #: PDPH-HAN-00137A-07-07-10

Philadelphia Department of Public Health

Division of Disease Control • 500 South Broad Street, Philadelphia, PA 19146

215-685-6740 (phone) • 215-686-4514 (after hours) • 215-545-8362 (fax) • www.phila.gov/health/units/ddc • hip.phila.gov



Information for Health Care Providers on Heat-Related Morbidity and Mortality

Health care providers should:

- Know the risk factors for heat-related morbidity and mortality.
- Advise at-risk patients to use air conditioning or go to an air conditioned place during hot weather.
- Be alert that extreme heat can exacerbate chronic medical conditions, such as heart or lung disease.
- Recognize the signs and symptoms of heat stroke – a medical emergency – and other heat-related illnesses.
- Initiate treatment and transfer for emergency care as appropriate.

Risk factors for heat related morbidity and mortality

- Adults aged 65 and older and children aged 4 and younger
- Lack of air conditioning at home
- Use of medications that impede thermoregulation (see following page for a list)
- Limited mobility or confinement to bed
- Social isolation
- One or more chronic medical or mental health condition, such as:

- Congestive heart failure and other cardiovascular diseases
- Diabetes and other endocrine diseases
- Emphysema and other respiratory diseases
- Liver disease
- Renal failure
- Cognitive and psychiatric disorders
- Cerebrovascular diseases and sequelae
- Obesity
- Hypertension

Some signs and symptoms of heat exhaustion and heat stroke include:

- Dizziness or fainting
- Muscle cramps
- Cool, moist skin or dry, hot skin
- Nausea or vomiting
- Headache
- Rapid, shallow breathing
- Impaired judgment, bizarre behavior, hallucinations, altered mental status, confusion, disorientation, and coma.
- Key features of heat stroke are hyperthermia above $>104^{\circ}\text{F}$ ($>40^{\circ}\text{C}$) and central nervous system dysfunction.

Information for Health Care Providers on Heat-Related Morbidity and Mortality

Drugs that impair response to heat

Drug Effect	Drug
Impaired Sweating	<ul style="list-style-type: none"> ○ Anticholinergic drugs ○ Antidepressants ○ Antihistamines ○ Antiparkinsonian drugs ○ Antipsychotic drugs ○ Tranquilizers
Hypovolemia	<ul style="list-style-type: none"> ○ Diurectics
Impaired cardiovascular responsiveness	<ul style="list-style-type: none"> ○ Beta-blockers
Increased metabolic rate	<ul style="list-style-type: none"> ○ Amphetamines ○ Sympathomimetic drugs
Impaired consciousness	<ul style="list-style-type: none"> ○ Ethanol ○ Opioids ○ Sedative-hypnotics

Treatment for heat exhaustion and heat stroke

- The mainstays of treatment for heat-related illness are:
 - Cooling of core body temperature
 - Fluid replacement
- Heat stroke is a medical emergency and patients require hospitalization.

Health care providers should advise patients

- **Use an air conditioner or go to an air conditioned place**
 - Encourage at-risk patients who have air conditioners to use them.
 - Encourage at-risk patients who do not have air conditioners to go to a neighbor's house, library, shopping mall, or Cooling Center. Call the Heatline at **215-765-9040**, or visit **www.pccares.org** to find a Cooling Center.
 - Advise at-risk patients to use a fan only when the air conditioner is on or the windows are open.
- **Stay out of the sun**
 - Limit outdoor activity to early morning and evening hours
 - Wear light-colored and light-weight clothing
 - Wear sunscreen
- **Drink more fluids and avoid foods high in salt**
 - Avoid drinks with caffeine, sugar, or alcohol
- **Call a doctor** if they or someone else experiences early signs of heat-related illness
- **Call 911** if they or someone else experiences signs of heat stroke



Recommendations on How to Avoid Heat-Related Illness

The Philadelphia Department of Public Health recommends the following tips to stay cool:

- Avoid working or playing in the hot sun or other hot areas. If you must be out in the sun, cover your head. A wide-brimmed hat or visor will protect your head from intense sun and provide a shield for your eyes.
- Use air conditioners and fans. Open as many windows as you can to release hot air.
- If you take medications, talk with your doctor. Some medication can cause a reaction in hot weather.
- Wear light-colored and light-weight clothing. Avoid wearing dark-colored clothes.
- Drink plenty of non-alcoholic liquids. Because the body loses fluids in the heat, drinking lots of liquids helps to avoid dehydration.
- Be sure pets have plenty of cool water to drink, and are kept out of the sun.
- Continue to eat like you normally would.
- Shower or bathe in cool water.
- NEVER leave older people, children or pets alone in cars. If you can, check on elderly neighbors in your community.
- The early warning signs of heat stress are tiredness, loss of appetite, faintness, light-headedness and nausea. If you or someone you know is experiencing these symptoms, go to a cool environment, drink liquids, remove excess clothing and rest.
- Serious signs of heat stress include unconsciousness, rapid heartbeat, throbbing headache, dry skin, chest pain, mental confusion, irritability, vomiting, diarrhea, muscle cramps, staggering and difficulty breathing. If you or someone you know is experiencing these symptoms, call 911. While waiting for help, move the person to a cool area, remove excess clothing, spray with water and fan the person.
- The City of Philadelphia operates several summer heat programs, including home visits by field teams, daytime outreach for the homeless, and the “Heatline.” You can call the Philadelphia Corporation for Aging’s “HeatLine” at **215-765-9040**.