

## PUBLIC HEALTH ADVICE



on preventing health effects of heat

NEW and UPDATED information for different audiences



## PUBLIC HEALTH ADVICE



on preventing health effects of heat

NEW and UPDATED information for different audiences

1

#### ABSTRACT

Adverse health effects of hot weather and heat-waves are largely preventable. Prevention requires a portfolio of actions at different levels: from health system preparedness, coordinated with meteorological early warning systems, to timely public and medical advice and improvements to housing and urban planning. This publication offers detailed information for various target audiences, and on medical advice and treatment practices.

#### Keywords

HEAT-WAVES
ADFVERSE HEALTH EFFECTS
PREVENTION
PUBLIC HEALTH INFORMATION
RISK MANAGEMENT

Address requests about publications of the WHO Regional Office for Europe to:

Publications
WHO Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (http://www.euro.who.int/pubrequest).

Document number: WHO/EURO:2011-2510-42266-58691

#### © World Health Organization 2011

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Cover image: photo processing by Emilio M. Dotto; original image Fotolia © Argus

Graphical layout: Emilio M. Dotto (Rome, Italy)



### CONTENTS

How to use these information sheets – what is NEW and what is UPDATED	5
Information for the general public during heat-waves (UPDATED)	6
For health authorities, medical professionals and care providers: risk factors for heat illness and mortality (NEW)	7
For medical professionals and care providers: health conditions that create high risk of health effects from heat (NEW)	9
For medical professionals: adverse effects of medication during hot weather (UPDATED)	11
For medical professionals: considerations regarding drinking advice during hot weather and heat-waves	13
Information for general practitioners (GPs)	14
Information for retirement and care home managers	15
For medical professionals: mild and moderate heat illnesses and their management	16
For medical professionals: management of life-threatening heatstroke	17
For the general public and care home managers: reducing indoor temperatures during hot weather (UPDATED)	18
For health authorities: information on protecting health from vegetation fires during heat-waves (NEW)	20
For the public: information on protecting your health from vegetation fires during heat-waves (NEW)	22
For health authorities, care home managers and employers: standards for occupational safety during heat-waves (NEW)	23
For health authorities and city planners: interventions in the built environment for the protection of health from effects of heat (NEW)	25
For health authorities: communicating "heat" (UPDATED)	28
10 steps towards a heat-health action plan (NEW)	29
References	31
Web links to selected heat-health action plans	33
Acknowledgements	34

# How to use these information sheets – what is NEW and what is UPDATED

The adverse health effects of hot weather and heat-waves are largely preventable. Prevention requires a portfolio of actions at different levels: from health system preparedness, coordinated with meteorological early warning systems, to timely public and medical advice and improvements to housing and urban planning. These actions can be integrated in a defined heat–health action plan.

This publication offers detailed information for various target audiences, and on medical advice and treatment practices. It builds on the WHO publication *Heat–health action plans – guidance* (Matthies et al., 2008) and contains new information on vulnerable population groups, vegetation fires, occupational health and housing. This information, along with the guidance on heat–health action plans, can be used to formulate behavioural and medical advice adapted to a particular national or regional context.

The information sheets can be printed off together or separately, as required. They reflect current evidence and can be used to develop information materials for the general public, medical professionals and health services at the national or subnational level. The information is intended to be scrutinized for its feasibility and applicability at the national or regional level and may need to be adapted accordingly.

Countries are invited to consider this publication as a proposal and to share their comments and experiences. Further information can be obtained from the WHO Regional Office for Europe web site

(http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/Climate-change).



## Information for the general public during heat-waves (UPDATED)

#### THROUGHOUT A HEAT-WAVE, FOLLOW THE RECOMMENDATIONS OF THE LOCAL HEALTH AUTHORITIES

#### Keep your home cool

- Aim to keep your living space cool. Check the room temperature between 08:00 and 10:00, at 13:00 and at night after 22:00. Ideally, the room temperature should be kept below 32 °C during the day and 24 °C during the night. This is especially important for infants or people who are over 60 years of age or have chronic health conditions.
- Use the night air to cool down your home. Open all windows and shutters during the night and the early morning, when the outside temperature is lower (if safe to do so).
- Reduce the heat load inside the apartment or house.
   Close windows and shutters (if available) especially those facing the sun during the day. Turn off artificial lighting and as many electrical devices as possible.
- Hang shades, draperies, awnings or louvers on windows that receive morning or afternoon sun.
- Hang wet towels to cool down the room air. Note that the humidity of the air increases at the same time.
- If your residence is air conditioned, close the doors and windows and conserve electricity not needed to keep you cool, to ensure that power remains available and reduce the chance of a community-wide outage.
- Electric fans may provide relief, but when the temperature is above 35 °C, may not prevent heat-related illness. It is important to drink fluids.

#### Keep out of the heat

- Move to the coolest room in the home, especially at night.
- If it is not possible to keep your home cool, spend 2–3 hours of the day in a cool place (such as an airconditioned public building).
- Avoid going outside during the hottest time of the day.
- Avoid strenuous physical activity if you can. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4:00 and 7:00.
- Stay in the shade.
- Do not leave children or animals in parked vehicles.

#### Keep the body cool and hydrated

- Take cool showers or baths. Alternatives include cold packs and wraps, towels, sponging, foot baths, etc.
- Wear light, loose-fitting clothes of natural materials. If you go outside, wear a wide-brimmed hat or cap and sunglasses.
- Use light bed linen and sheets, and no cushions, to avoid heat accumulation.
- Drink regularly, but avoid alcohol and too much caffeine and sugar.
- Eat small meals and eat more often. Avoid foods that are high in protein.

#### **Help others**

- Plan to check on family, friends, and neighbours who spend much of their time alone. Vulnerable people might need assistance on hot days.
- Discuss extreme heat-waves with your family. Everyone should know what to do in the places where they spend time.
- If anyone you know is at risk, help him or her to get advice and support. Elderly or sick people living alone should be visited at least daily.
- If a person is taking medication, ask the treating doctor how it can influence thermoregulation and the fluid balance.
- Get training. Take a first-aid course to learn how to treat heat emergencies and other emergencies. Everyone should know how to respond.

#### If you have a health problem

- Keep medicines below 25 °C or in the refrigerator (read the storage instructions on the packaging).
- Seek medical advice if you are suffering from a chronic medical condition or taking multiple medications.

#### If you or others feel unwell

- Try to get help if you feel dizzy, weak, anxious or have intense thirst and headache; move to a cool place as soon as possible and measure your body temperature.
- Drink some water or fruit juice to rehydrate.

- Rest immediately in a cool place if you have painful muscular spasms (particularly in the legs, arms or abdomen, in many cases after sustained exercise during very hot weather), and drink oral rehydration solutions containing electrolytes. Medical attention is needed if heat cramps last more than one hour.
- Consult your doctor if you feel unusual symptoms or if symptoms persist.

△ If one of your family members or people you assist presents hot dry skin and delirium, convulsions and/or unconsciousness, call a doctor/ambulance immediately. While waiting for help, move the person to a cool place, put him or her in a horizontal position and elevate legs and hips, remove clothing and initiate external cooling, for example, by placing cold packs on the neck, axillae and groin, fanning continuously and spraying the skin with water at 25–30 °C. Measure the body temperature. Do not give acetylsalicylic acid or paracetamol. Position an unconscious person on his or her side.

#### FOR SERVICE PROVIDERS

In material for the public, include information on help lines, social services, ambulances, cool spaces and transport.

Provide access to cool spaces and ensure active assistance for people most at risk.

预览已结束,完整报告链接和二维码如下:

https://www.yunbaogao.cn/report/index/report?reportId=5 28883



