



*Ministero della Salute*



Centro Nazionale per la Prevenzione  
e il Controllo delle Malattie

# **HOW TO BEAT THE HEAT FOR A SAFE SUMMER, 2010**



**Handbook on home care  
for the elderly**



Summer is a relaxing time of the year when fine weather is usually anticipated. Summer temperatures are higher when compared to other seasons of the year, allowing our organism to benefit from a period of less stressful conditions.

In certain conditions, the climate may become abnormally hot, and this event, especially when associated with very high humidity levels, can cause a danger to health if these high temperatures persist also at night and continue for a period of more than 48 hours. It is in these circumstances that we are faced with what is defined as a “heatwave”.

During the summer of 2003, conditions of excessive heat occurred in Italy and in other European countries, causing an increase in hospital admissions and deaths, particularly among the elderly and with a focus on the big cities. Experts have forecast that heatwaves will become even more frequent in Europe in the near future, and we therefore need to be aware of the safety measures needed to combat these events effectively and which, above all, put the elderly population at risk.

**This pamphlet is aimed at those providing home care to the elderly.**

### Heatwave

**It is vital to be aware of precautions needed to protect the health of persons at risk**



**Am I assisting a person who has a high risk of damage from excessive heat?**

To reply to this question, a number of individually-related characteristics need to be known.

Those most exposed to danger

**? Does the assisted person fit the following description?**

<i>75 years of age and above</i>	<i>Yes</i>	<i>No</i>
<i>Heart disease?</i>	<i>Yes</i>	<i>No</i>
<i>Alzheimer's disease?</i>	<i>Yes</i>	<i>No</i>
<i>Respiratory problems?</i>	<i>Yes</i>	<i>No</i>
<i>Mobility problems?</i>	<i>Yes</i>	<i>No</i>
<i>Bed sores?</i>	<i>Yes</i>	<i>No</i>
<i>Able to eat unaided?</i>	<i>Yes</i>	<i>No</i>
<i>Parkinson's disease?</i>	<i>Yes</i>	<i>No</i>
<i>Psychiatric disorders?</i>	<i>Yes</i>	<i>No</i>
<i>Diabetes and/or renal insufficiency?</i>	<i>Yes</i>	<i>No</i>
<i>Habitually takes more than 4 different types of prescribed medicines</i>	<i>Yes</i>	<i>No</i>
<i>High temperature?</i>	<i>Yes</i>	<i>No</i>

**If at least one reply relating to the assisted person is affirmative (Yes), you need to be extra vigilant** when heat becomes intolerable even at night, and take action to reduce the risk of damage to health.

**Why is a heatwave dangerous to the health of vulnerable persons?**

- During a period of hot weather, a healthy organism is able to combat the climatic effects through perspiration, resulting in a lowering of the skin temperature. This perspiration consists almost entirely of water, in which minerals are dissolved. In extreme heat conditions, we can lose a number of litres of water a day through perspiration, and these need to be replenished by drinking lots of water.
- In people at risk, the regulation of skin temperature through the production of perspiration may function poorly, or their liquid intake may be insufficient. Many people at risk (those covered by the first question) may not feel thirsty or want to drink even when they perspire a lot, or they may not be able to drink. In these circumstances the body temperature may rise, or the body may lose too much water to be able to survive.

**Do any warning signs or symptoms exist?**

Some signs and symptoms exist and are revealed under conditions that allow for their remedy: the appearance or intensification of muscle cramps, rashes (reddening of the skin) and papules (small hard swellings on the skin).

In such a deteriorating situation, the assisted person may experience mental confusion or an aggravation of mental confusion, headaches, convulsions, a rise in skin temperature. Very often these symptoms are not clearly recognised in those suffering from dementia. A person thus affected can, for example, be suffering from a headache but may not be able to communicate this, and instead present a state of agitation, or, on the contrary, sleepiness.

However, wherever possible, timely action should be taken in the initial stages when the first symptoms, not yet serious, occur, and before signals of severe distress appear in the assisted person.

**Learn to recognise the symptoms that reveal a serious level of suffering due to extreme heat**



In fact, when these symptoms do occur, any action taken usually results ineffective and the emergency health services will need to be called upon (see last reply).

**What preventive measures should be taken during the summer months?**

■ During the summer months it is prudent to carry out general measures aimed at confronting possible heatwaves in the best way available. Such measures reflect individual living environments, life-styles, and the care required for the assisted person concerned (see following replies).

**What can be done to improve conditions in the home environment?**

■ The state of wellbeing of a person in a heat-related situation depends mainly on the environmental temperature and the environmental humidity present. A temperature of 22° C is not thought to present any significant risk. If the environmental temperature is less than 26°, the climate is well tolerated up to an 80% humidity rate. It is useful to have a thermometer in the home to measure the temperature and a hygrometer to measure the humidity, and these can be readily purchased at a price of less than 20 Euro. These thermometers should be placed in the rooms generally used. The following table gives useful indications on temperatures and humidity rates above which discomfort can occur in the at-risk population.

**Take action on factors that may cause distress and malaise**



**Environmental limits not to be exceeded inside the home**

<i>Temperature (°C)</i>	<i>Humidity</i>
26	88%
27	78%
28	59%
29	52%
30	45%

If air-conditioning exists, the recommended temperature is between 24 and 26°.

Fans should not be used when the temperature remains constantly above 32° because this can provoke a dangerous loss of liquids through perspiration.

The home environment must be kept airy at night, whereas during the day the sun's rays should be excluded (shutters and curtains kept closed).

In some cases it may be advisable to move the usual living areas to cooler parts of the house.

**Control temperatures in the home**



**Is it advisable to go out of the house during the summer period?**

It is always wise to keep mobile. Also, in the case of immobility it is of great benefit to be able to go out of the house, to meet up with other people and to visit green parks. However, on these outings with a person at risk it is advisable to avoid the hottest period of the day (usually from 11.00 to 18.00 hours).

**Is a change in diet indicated?**

As always, a varied diet is necessary. During the summer period all alcoholic drinks should be avoided (wine, beer, spirits), iced, fizzy and sweet drinks. Preference should be given to fruit and vegetables, avoiding all fatty and spicy foods.

**What type of clothing should be worn?**

Light cotton or linen garments, preferably in pale colours. Synthetic materials should be avoided.

**A healthy life-style  
and regular diet**



### Is there any other practical advice?

*Always check that water and ice are on hand for the assisted person, as well as fruit and vegetables*

*At regular intervals during the day, help those who are not autonomous to get around and keep active*

*For those with swallowing difficulties, gellified water may solve the problem*

*During the month of May it is advisable to check with the family doctor on prescribed medicines, requesting advice on their correct use in the case of a high body temperature*

**Basic safety precautions to prevent and alleviate symptoms**



**Focus on ways  
to reduce risks**

**What must I do to reduce risks for the assisted person during possible heatwaves?**

All the recommendations described become obligatory standards to be followed.

In addition, the following measures are essential:

- increased control of the environmental temperature where the assisted person lives
- ensure that the person drinks the right amount of liquids (not less than 2 litres per day unless otherwise advised by the family doctor), and water or fruit juices should be offered to the person even when not requested
- suspend any type of physical activity whatsoever during the hottest period of the day (11.00 – 18.00 hours)
- splash or sponge down the person with cool water so as to maintain a satisfactory body temperature
- take the body temperature, because if this rises it may be necessary to call the doctor
- be aware of the appearance of symptoms, such as mental confusion or agitation which may point to distress resulting from excessive heat
- if possible, take the person to an air-conditioned environment for at least 4 hours daily, and in any case ensure that the person stays in the coolest part of the house.

**Are there any special precautions to be taken with regard to storing medicines during the summer period?**

All medicines should never be exposed to sunlight or placed close to a source of heat. Always leave the medicine in its original wrapping. A number of medicines need to be kept in the refrigerator (not in the freezer!) and this is indicated on the medicine wrapper. In case of doubt, ask your doctor or pharmacist.

**What should I do if I know of a person at risk?**

- It is best to try to speak with this person, with his neighbours and family members, and ultimately pass on his details to his local health and social services administration.

**What should I do in the case of a severe heatstroke?  
Call the emergency services immediately (118)**

While waiting:

- take the assisted person's temperature
- if possible, take the assisted person to a cooler room
- splash or sponge down the person with fresh (not too cold) water
- give water or other liquids to drink (such as fruit juices)
- do not give any medicines aimed at reducing the person's temperature (i.e. Aspirin or Paracetamol).

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**In the event  
of a heatstroke, call 118  
emergency services  
immediately**



FOR A SAFE SUMMER, 2010 - HOW TO BEAT THE HEAT

This Handbook has been  
finalised by a national working  
group on climatic emergencies

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