

## Heat protection plan Tyrol



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# List of abbreviations

concerning.	with reference to
°C	Degree Celsius
etc.	and so on
possibly.	if applicable
hPa	Hektopascal
K	Clothing
m²	square meters
m/s	meters per second
PET	physiologically equivalent temperature
do	among other things
IN	Thermal resistance
WHO	World Health Organization
Z.A.M.G.	Central Institute for Meteorology and Geodynamics
z.B.	For example

## Foreword

We enjoy beautiful, sunny summer days, but heat also poses many – a major challenge to our health.

More and more hot days and tropical nights therefore require different measures to help us adapt to the heat and protect ourselves from negative consequences.

Heat waves naturally occur at regular intervals in our latitudes, but their frequency and intensity are increasing with climate change. A high risk potential arises when high daytime and nighttime temperatures are reached over several days, which poses a high health risk, particularly for vulnerable people and risk groups.

The definition of heat stress and the classification of thresholds for heat waves and

Stress classes vary from country to country, depending on the basic climatic conditions and evolutionary adaptations of the local people.

This heat protection plan is aimed at the Tyrolean population and system partners such as municipalities, residential and nursing homes, hospitals, educational and childcare facilities. The information is intended to help identify potential health risks, take preventive measures and demonstrate effective responses.

It is expected that the challenges posed to the healthcare system by heat waves will increase. It is therefore from necessary for healthcare and care facilities in particular to prepare consistently for heat events and develop a concrete plan for heat protection.

Short, medium and long-term measures must be taken to protect our health as best as possible.

These measures include population-wide  
Information and education campaigns, early and precise

Advance warning

Communication chain and information for

Those affected can take measures to respond to the advance warning.

This Tyrol Heat Protection Plan summarises the essential health-related measures against heat stress and serves as a basis for further developments in this area in the coming years.



Figure 1 Dr. Cornelia Hagele State Councillor and health officer

# Introduction

Climate change is one of the greatest challenges of our time.

our

Temperature fluctuations and heat events are increasing.

([Increase in hot days](#) accessed on 01.12.2023)

High temperatures during the day and a lack of cooling at night pose a significant health risk for certain groups of people. Particularly vulnerable are the elderly, children, patients with cardiovascular diseases and mental illnesses, and people with reduced mobility.

The 2022 heatwave caused more  
als 62.000 „zusätzliche“ Todesfälle.

([Heat-related mortality in Europe](#) accessed on 10.12.2023)

The aim of Tyrol's heat protection plan is to use  
recommendations and information on behavioural and  
situational prevention to Measures and  
reduce the direct and indirect  
to counteract the health consequences of heat waves.

## background

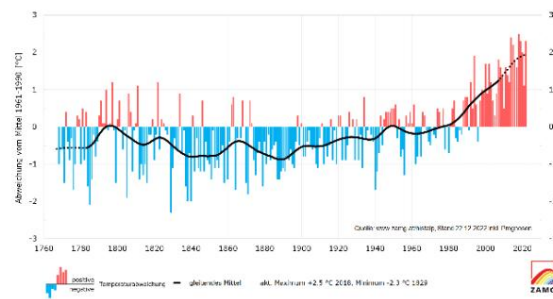
The increasing heat, especially in our cities, is one of the consequences of advancing climate change. Particularly stressful are increasingly frequent and longer-lasting heat waves, in which it is hot during the day for several days in a row and cools down only slightly at night.

A significant increase in hot days is observed in Austria. The number of hot days (at least 30°C) has multiplied in Austria in recent decades. In the period from 1961 to 1990, there were between three and twelve hot days per year in the state capitals of Austria and the records were mostly 20 hot days per year. In the period from 1991 to 2020, in an average year in the

State capitals already had between 9 and 23 hot days and the records were mostly over 40 hot days (GeoSphere Austria, Climate,

22.07.2022; [Increase in hot days](#); As of 01.12.2023).

Figure 2 Increase in hot days



The human body's core temperature is largely constant (approx. 36.5 - 37.5 °C) due to the interaction of heat generation, heat absorption and heat loss. Temperature balance is controlled by the body's surface temperature, which results from the ambient temperature and the temperature inside the body (approx. 28 - 37 °C) and depends on blood circulation, activity and the outside temperature. Excess heat can be released from the body through direct contact with a cold material, through transfer to the air, through thermal radiation and through evaporation when sweating.

The extent of heat loss depends on the temperature difference between the ambient temperature and the body surface temperature.

In addition to the temperature difference,  
The following factors also play a role in the release of excess heat:

- the vapor pressure (at high humidity the proportion of water vapor is high and high  
Water vapor pressure in the air makes it difficult and reduces the evaporation of sweat),
- the wind speed (air movement promotes the evaporation of sweat) and
- direct sunlight

The effects of the thermal environment on humans are described using the physiologically equivalent temperature (PET). It evaluates the thermal well-being of humans based on their energy balance and is based on the transfer of the current climate values of the environment to a comparable room climate. The room climate values used are: air speed 0.1 m/s, water vapor pressure 12 hPa (=50% relative humidity at 20° C air temperature, whereby the

Air temperature corresponds to the radiation temperature), slightly sedentary activity (80 W), heat transfer resistance of clothing = 0.14 K m²/W. The PET therefore corresponds to the room air temperature (average radiation temperature) at which the human energy balance in the room is the same as that in the outside climate to be assessed.

Figure 3 Allocation of PET areas for the thermoanalytical exposure of people in Central Europe, Source: Mayer H. & Matzarakis A1997

PET	Thermisches Empfinden	Thermophysiologische Belastung
18 - 23°C	begegnet	keine thermische Belastung
23 - 29°C	leicht warm	schwache Wärmebelastung
29 - 35°C	warm	mäßige Wärmebelastung
35 - 41°C	heiß	starke Wärmebelastung
ab 41°C	sehr heiß	extreme Wärmebelastung

Quelle: Mayer, H., & Matzarakis, A. (1997). The urban heat island seen from the angle of human-biometeorology. In T. Ichinose (Editor) Proceedings International Symposium on Monitoring and Management of Urban Heat Island, Fujisawa, November 19-20, 1997 (Pg 84-95)

In urban areas, higher air temperatures can be observed near the ground than in rural areas. This overheating is known as the heat island effect and is a typical phenomenon of the urban climate. It mainly affects areas in

larger cities (>100,000 inhabitants) with heavy sealing, dense development and air pollution.

A number of factors influence the extent to which people's health suffers from heat. These include environmental stressors such as air pollution, socioeconomic status and lifestyle. Over the course of a day, people breathe in between 10 and 15 kilograms of air, thus supplying the body with vital oxygen. Air pollutants such as ozone, particulate matter and nitrogen oxides also enter the body in this way and can cause a number of diseases. To protect the

human health were therefore Limit values for various air pollutants enshrined in law (State of Tyrol – Environment & Air Quality).

Intense solar radiation combined with high air temperatures increase particulate matter pollution through the formation of secondary aerosols and promote the formation of ground-level ozone, which is hazardous to health. Increased ozone concentrations from

can cause irritation of the mucous membranes, headaches and breathing difficulties.

In addition to industrial processes, the most important sources of fine dust are emissions from motor vehicles, power plants and district heating plants, as well as ovens and heaters in residential buildings. Fine dust consists of tiny particles of different sizes and chemical compositions. The dust particles cause a variety of harmful effects in the respiratory tract and, due to inflammatory processes, in the entire body.

People with Herz-Kreislauf- and Respiratory diseases are particularly affected by extreme heat events. During a heat wave or when air quality is poor, for example, an increase in blood pressure and heart rate is observed, accompanied by an increased risk of acute events such as heart attack or stroke (Matthies-Wiesler, F. et al., [Impact on lung diseases](#) accessed on 10 July 2023).

# Health Effect of heat

The heat can harm human health in many ways, exacerbating existing health problems and causing new ones.

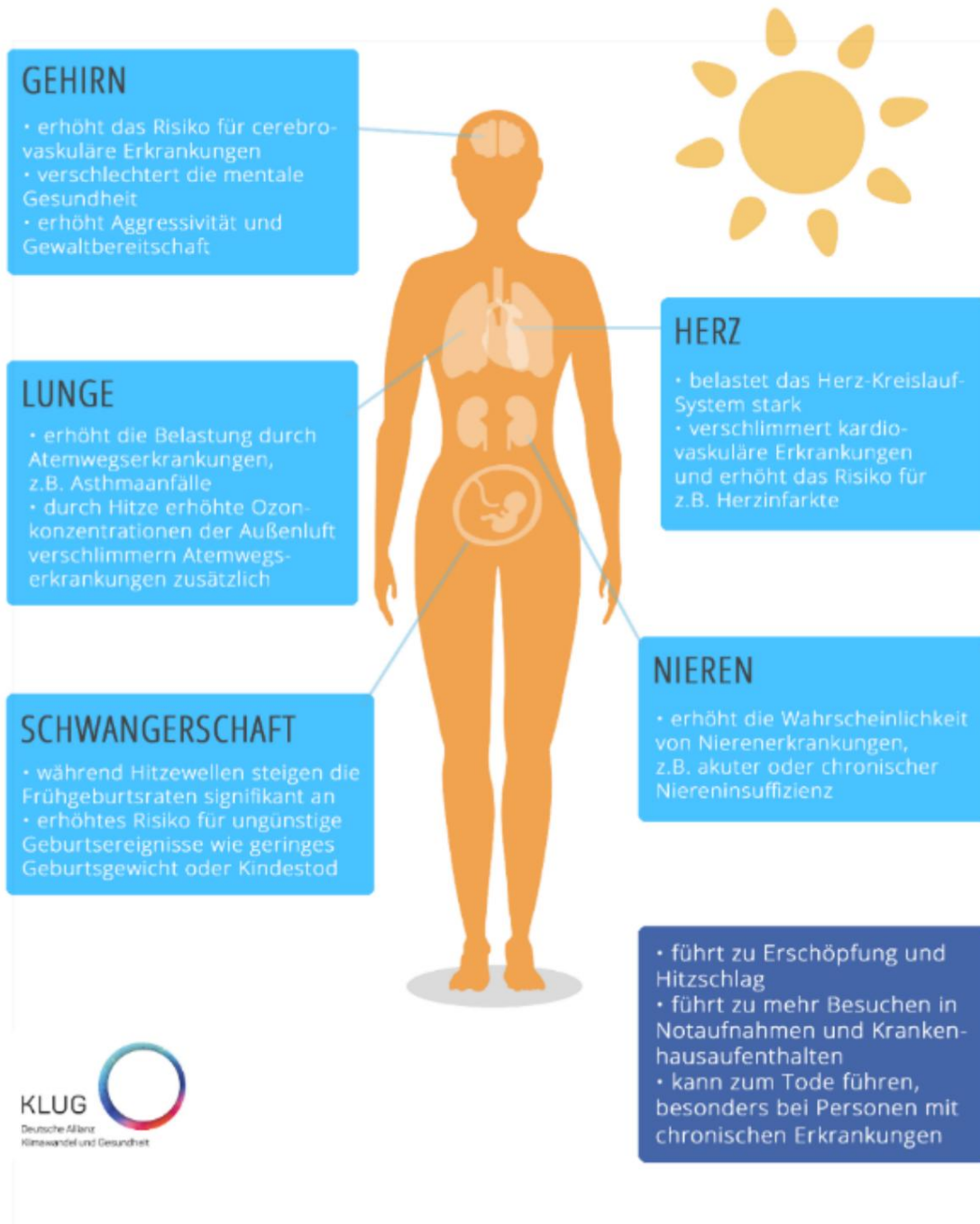
Figure 4 First warning signs of heat-related health problems and heat illnesses; Source: Leyk et al. 2019, Health risks and intervention in exertional heat



Figure 5 Health complaints; Source: KLUG, Climate Change Health Germany –



## WIE HITZE DIE GESUNDHEIT BEEINTRÄCHTIGEN KANN



## Risk factors for heat-related illness and mortality

Not all people are equally at risk of suffering health problems at high temperatures. The risk depends to a large extent on individual predisposition, individual behavior, level of education and socioeconomic status.

Table 1 Selected risk factors, modified from WHO Regional Office for Europe Health advice on the prevention of heat-related health effects;  
[Health advice to prevent heat-related health damage](#) As of 01.12.2023

Risk factor	impact
Old age (>65 years)	Changes in body temperature, kidney function and health status, reduced water intake and reduced body control.
Infants and children	Temperature regulation not fully developed, smaller body mass and smaller Blood volume, largely dependent, risk of fluid loss for diarrhea.
Gender	Women are particularly sensitive to heat during pregnancy
Task	When working outdoors on hot days, performance and concentration decrease significantly and the frequency of errors and the risk of accidents increase. <b>Sport</b> in high temperatures is particularly demanding on the circulatory system, as the sun and <b>heat</b> quickly dehydrate the body.
Low economic. Status (poverty, low income, low level of education)	In general, there is a higher prevalence of chronic diseases, lower quality of living and poorly insulated, heated or cooled apartments.
homelessness	Lack of accommodation, chronic comorbidities (physical and mental).
Need for care	Bedridden, poor health (multimorbidity), need for care.
Social isolation	Delay in assistance and medical care.
Drug abuse	Limited awareness of the heat problem or, in the case of amphetamine-like substance abuse, an increased risk of hyperthermia.
No health care	Lack of information on the treatment of existing diseases;  Delay in treatment of heat-related illnesses.



## Heat-related illnesses and their treatment

Heat-related health problems can occur at high temperatures and/or in direct sunlight. They are caused by acute overheating, which the body can no longer compensate for physiologically. Milder forms of heat damage can occur in parallel and heat exhaustion in particular can turn into heat stroke.

General warning signs

- Increased thirst and dry mucous membranes (dry mouth)
- Increased body temperature, heavy sweating
- Feeling of exhaustion and weakness, circulatory problems (especially arterial hypotension)
- Nausea, dizziness, throbbing headache and vomiting
- Restlessness, sleep disorders
- Confusion, attention disorders, delayed reflexes
- Loss of appetite

Table 2 Clinical symptoms caused by heat and sunlight

by WHO Regional Office for Europe [Health advice on preventing heat-related health effects](#) As of 01.12.2023

Form	Symptoms	therapy
Vocabulary	Small red itchy poplars, especially common in young children	A heat rash goes away without any special treatment. Minimize sweating by in an air-conditioned environment, often shower and wear light clothing. Dry the affected area hold.
Solar dermatitis („Sonnebrand“)	Local damage to the skin due to excessive exposure to UVB Rays	
Heat edema	Edema in the lower legs, usually at the ankles, at the beginning of the hot season. The phenomenon is attributed to heat-induced peripheral vasodilation and the retention of water and salt.	Treatment is not necessary because the edema usually after a Acclimatization subsides. Avoid prolonged sitting or standing.
Heat syncope (word collapse)	Brief loss of consciousness or Dizziness when standing upright due to dehydration, peripheral Vasodilation and reduced venous Backflow with reduced cardiac pumping performance	Those affected should Rest on your back in a cool place and with high lying Legs are stored to to increase venous return, encourage drinking.

Cramp of words	Painful muscle cramps usually in Legs, arms or abdomen, often after excessive physical exertion. This phenomenon is attributed to dehydration, electrolyte loss through excessive sweating and muscle fatigue.	Immediately rest in a cool place, stretch muscles and massage gently. Oral Hydration with a Electrolyte solution.
Heat exhaustion symptoms	include severe thirst, weakness, malaise, tightness, dizziness, fainting and headache. The body temperature can be normal,  below normal or slightly increased (below 40 °C). flat pulse with drop in blood pressure and rapid, shallow breathing. The mental state is unchanged. This phenomenon is Water or salt loss due to staying in extreme ambient heat or strenuous physical activity.	Store in a cool place, Remove clothing, cold, wet Apply towels or spray cold water, lie on your back and keep your legs elevated to  to increase venous return. Oral, if necessary parenteral electrolyte solution.
Sunstroke	Isolated overheating of the head,  Irritation of the meninges, symptoms are headache, nausea, vomiting, dizziness, red, hot head, fever.	Cool, shady environment, cold Compresses on the neck, forehead, legs and arms, encourage drinking unless nausea or Vomiting is present, no cold Shower or full body bath.
heatstroke	Affects the entire body. When the core body temperature is above 40 degrees Celsius, the temperature regulation system, such as sweat production, stops. This results in a build-up of heat. Symptoms include headaches, nausea, vomiting  Dizziness, fever over 40 degrees, stiff Neck, neck pain, impaired consciousness, cramps, paralysis, low blood pressure, hot but dry skin, impaired consciousness up to unconsciousness, rapid breathing.	Life-threatening condition, emergency call 144, resuscitation measures if necessary initiate until the arrival of the Rescue, storage in a cool place, in case of unconsciousness in the recovery position.

## First aid for heat complaints

What to do if you have heat symptoms:

- move to a cooler environment
- flat position, no head-down position, legs high
- cold compresses on the neck and forehead
- oral electrolyte and fluid balance
- Massage cramping muscles if necessary
- Measure body temperature. If the temperature is elevated, always consult a doctor

## The heat warning system

As a national geological, geophysical, climatological and meteorological service, the Federal Institute GeoSphere Austria provides current weather forecasts and warnings for all regions of Austria based on nationwide meteorological and geophysical measurement networks.

### Warning levels

GeoSphere Austria warns of extreme weather events such as wind, rain, snow, black ice, thunderstorms, heat and cold. The intensity of a predicted event, and thus the extent of the expected impact, are indicated using warning colors. For

die Hitzebelastung werden die Warnfarben „gelb“, „orange“ und „rot“ verwendet, die jeweils für „Vorsicht“, „Achtung“ und „Gefahr“ stehen. Die heat warnings issued are based on predicted values for thermal sensation ([ZAMG total period Austria](#), accessed on 05.07.2023).

Heat waves are experienced differently around the world

The Federal Institute GeoSphere Austria defines a heat wave as a series of at least three consecutive days on which the average daily temperature is above 30°C without any night-time cooling below 20°C.

Im Fall einer Hitzewarnung von „orange“ oder „rot“ informed GeoSphere Austria the State Warning Centre Tyrol, which forwards this information to the previously determined facilities in a timely manner. If necessary, a

Differentiation by district. The following recipients are included in the mailing lists:

- Care and nursing facilities
- Hospitals and health resorts
- Childcare facilities (kindergartens, schools, etc.)
- mobile care services
- Medical Association
- Emergency organizations
- Communities
- District authorities

In addition, the Chamber of Labor, the Chamber of Commerce, the Chamber of Agricultural Workers and the Chamber of Agriculture will be informed in order to enable timely information to be passed on to the relevant groups of people via these institutions as well.

The distribution lists are updated once a year in spring.

## Prevention, early warning and warning levels

Table 3 Precaution, early warning and warning levels

prevention	Development
planning	<ul style="list-style-type: none"> <li>• Development of the Tyrol heat protection plan</li> <li>• Identification of risk groups and persons</li> <li>• Identification of stakeholders (old people's and nursing homes, etc.)</li> <li>• Preparation of information for the population and target groups</li> <li>• Creation of information material for the media</li> <li>• Developing awareness and expertise among those affected regarding heat-related problems and disease progression</li> </ul>
Information work	<ul style="list-style-type: none"> <li>• Heat protection plan available for download online</li> <li>• Leaflets and information with general Recommendations and preventive Protective measures online</li> <li>• Specialist information for doctors</li> <li>• Further links</li> </ul>
Instruments and measures	<ul style="list-style-type: none"> <li>• Information work and awareness raising</li> <li>• Establishment of the warning system and regular review of the information chain</li> <li>• Heat protection plans in care and social and health care facilities</li> <li>• Evaluation, development and adaptation of the Heat protection plan Tyrol</li> </ul>
Early warning level	Contents
observation	Increased occurrence of summer days and tropical Nights
Information work	Availability of the heat protection plan and the Information materials online
Warning level	orange/rot
Basis for activation	<ul style="list-style-type: none"> <li>• Reporting of GeoSphere to the Tyrol State Warning Center regarding an upcoming heat wave</li> </ul>
Information work	<ul style="list-style-type: none"> <li>• Media preparation of information for the Population</li> <li>• Information sheets/folders on general Rules of conduct and heat protection tips</li> </ul>
Measures	<ul style="list-style-type: none"> <li>• Passing on the information to defined Recipients</li> <li>• Recommendation to activate internal Heat protection plans in care and social and health care facilities</li> </ul>

## selected measures

### Heat protection action plans of the Facilities

To mitigate or prevent the harmful effects of heat on the vulnerable population and to reduce the

increasing burden on health systems

To mitigate heat waves, timely  
Information and concrete

Instructions for action for social and health care institutions  
and doctors

as well as for the population.

Accordingly, in spring 2023, coordination meetings took place between the Tyrol clinics and the state of Tyrol with the aim of developing evidence-based recommendations for action and making them available to the vulnerable institutions that treat, care for and accompany groups of people (including hospitals, nursing homes, mobile services, facilities of the ) to draw up their individual heat protection plans.

Behindertenhilfe ...

Improvements can be achieved during heat waves using simple means. Continuous evaluation of the measures taken and the existing infrastructure is essential. The model heat protection plan addresses the following topics, among others:

- Storage and transport of heat-sensitive  
Medicines and materials
- Employee protection
- Shading, Ventilate, technical  
Support options
- Treatment practice, discharge management
- Communication and information
- Establishment of internal warning levels for  
Health professions and  
Patients/clients/users and  
Visitors
- Heat-related effects on the  
Infrastructure such as water, electricity and  
Food supply supply
- Specific care and support measures in outpatient care can  
include, for example:

- o Adaptation and monitoring of the  
Drinking behavior

- o Adjustment of diet
- o Adjustment of clothing especially  
for people in need of care
- o Adjustment of medication  
about Tageszeitliche Adjustment from  
Leisure activities and stays at  
Places outdoors or in cool  
Clear

### public relation

In 2023, the focus was not only on establishing heat protection action plans in facilities, but also on increasing the resilience of the population and the health system. Broad-based awareness-raising measures with concrete heat protection tips. In particular, easily prepared information material should help to achieve this goal.

The following, created in cooperation with the Tyrol clinics,  
Information and  
Information media were used.

- Posters and folders (see Annexes 1 and 2):  
These materials were made available to all communities  
made available so that this information can be  
disseminated through community newspapers,  
direct mail, public announcements such as on  
noticeboards, social media, at events, etc.

- In the regional newspaper and in supplements of  
national media

- ORF Guide: Articles with heat protection tips
- Social media posts from the state of Tyrol

Most of these general materials can be reused and made  
available whenever needed.

### Specialist information for doctors

In coordination with the Tyrol clinics and the Medical Association, appropriate specialist information was prepared and fact sheets were made available to doctors as an information measure for their use

Patient: collecting to

[\(Heat campaign of the state of Tyrol technical information, brochure and poster As of October 27, 2023\).](#)

## Outlook

On 25 May 2021, the Tyrolean state government adopted the new Tyrolean sustainability and climate strategy "Living with a Future".

This focuses on the time horizon of 2030 and states

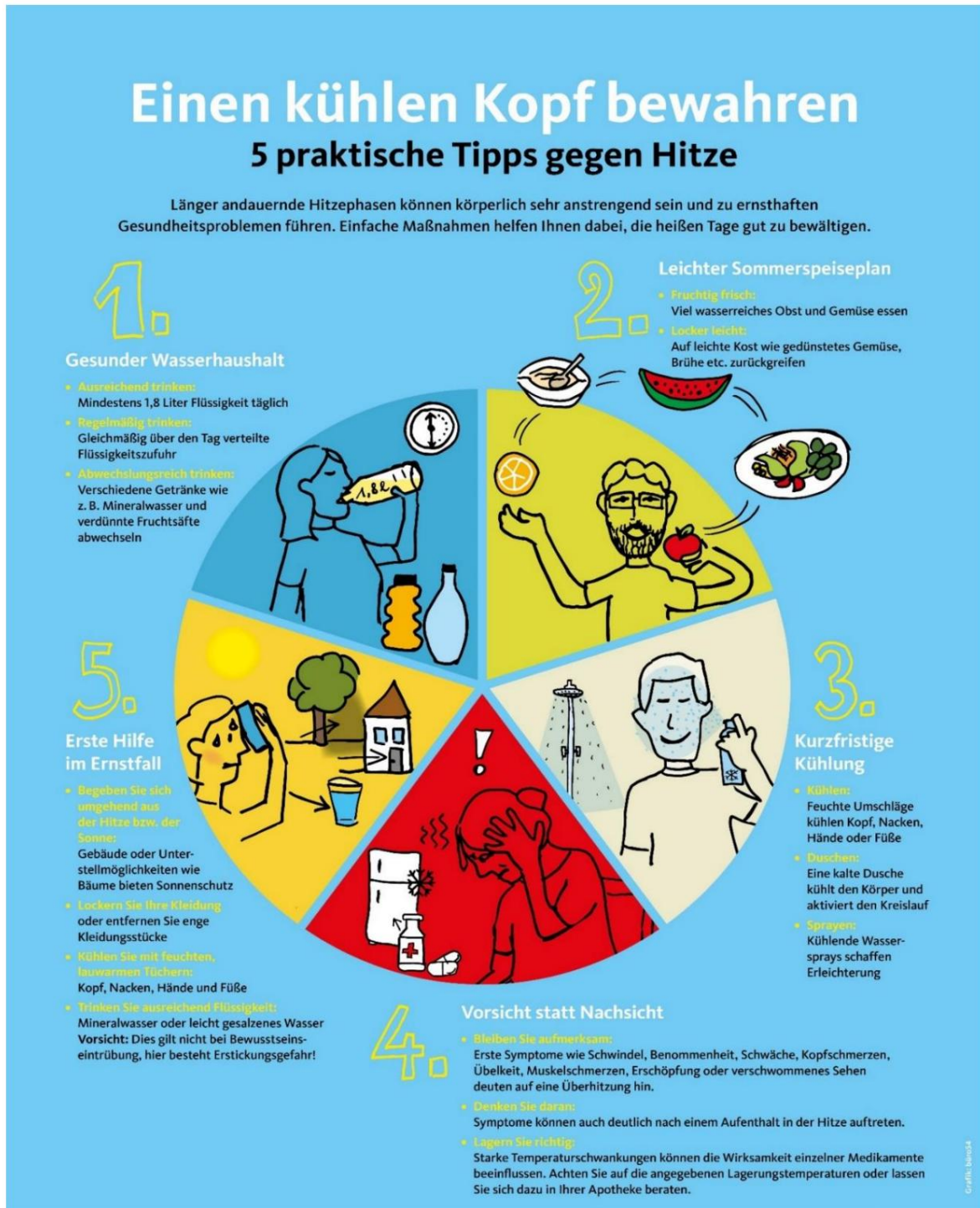
Objectives and key areas of action to tackle complex and pressing challenges such as climate change, social inequalities or the depletion of natural resources ([Tyrolean Sustainability and Climate Strategy](#)). Concrete measures on the topic of climate health will be further expanded in the future and will be increasingly reflected in this programme of measures. The aim is to be able to provide the population with well-founded information material at all times.

This heat protection plan is regularly evaluated, adapted and supplemented if necessary.



## Attachment: Poster and folder heat protection tips

Figure 6 Keep a cool head 5 practical tips against heat



### Weitere hilfreiche Tipps gegen Hitze

- Halten Sie sich im Schatten oder in klimatisierten Gebäuden auf
- erledigen Sie unvermeidbare Aktivitäten möglichst am Morgen
- Tragen Sie leichte, lockere Kleidung und schützen Sie sich mit Sonnenschutz (Sonnenhut, Sonnenbrille, Sonnencreme)
- Informieren Sie sich in den lokalen Nachrichten über die aktuelle Wetterlage und Wettervorhersagen





Länger andauernde Hitzephasen können körperlich sehr anstrengend sein und zu ernsthaften Gesundheitsproblemen führen. Einfache Maßnahmen helfen Ihnen dabei, die heißen Tage gut zu bewältigen.

EINEN KÜHLEN KOPF BEWAHREN

# 1.

## Gesunder Wasserhaushalt

- **Ausreichend trinken:**

Achten Sie auf eine regelmäßige Flüssigkeitszufuhr und vermeiden Sie Alkohol und koffeinhaltige Getränke.

**Tipp:** Ein Trinkplan kann dabei helfen, den Überblick über die Trinkmenge zu behalten.

**Achtung:** Zu viel Flüssigkeit kann auch zu körperlichen Beschwerden führen.

- **Regelmäßig trinken:**

Gleichmäßig über den Tag verteilt.

- **Abwechslungsreich trinken:**

Verschiedene Getränke wie z. B. Mineralwasser, verdünnte Fruchtsäfte oder auch Sportgetränke sorgen für einen abwechslungsreichen Erhalt des Flüssigkeitshaushaltes.







## 2.

### Leichter Sommer- speiseplan

- **Fruchtig frisch:**  
Viel wasserreiches Obst und Gemüse essen.
- **Locker leicht:**  
Auf leichte Kost wie gedünstetes Gemüse, Brühe etc. zurückgreifen.

EINEN KÜHLEN KOPF BEWAHREN

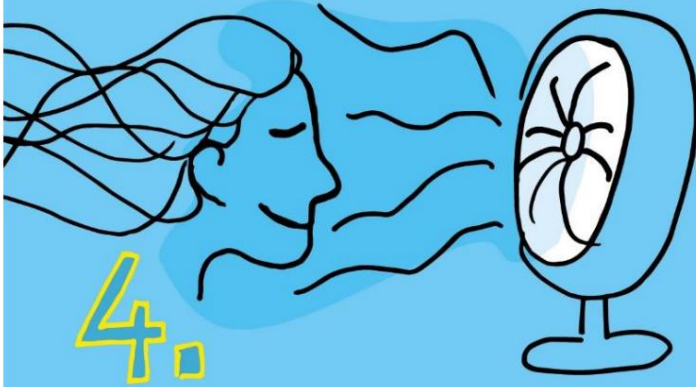
## 3.

### Kurzfristige Kühlung

Achten Sie darauf, Ihren Körper bestmöglich zu kühlen.

- **Kühlen:**  
Feuchte Umschläge auf Armen, Beinen, Stirn oder Nacken anwenden.  
**Achtung:** Bei der direkten Anwendung von Kühl-Akkus auf der Haut können Kälteschäden entstehen. Um dies zu vermeiden, hilft das Umwickeln mit einem Geschirrtuch.
- **Duschen:**  
Eine kalte Dusche kühlt den Körper und aktiviert den Kreislauf.
- **Sprayen:**  
Kühlende Wassersprays oder Lotionen schaffen Erleichterung.





## Häusliche Umgebung

Halten Sie Ihre Wohnräume kühl durch:

- **Lüften:**

Lüften Sie am besten in den frühen Morgenstunden.

- **Schlaf- und Aufenthaltsbereiche:**

Verlegen Sie bei Möglichkeit Ihre Schlaf- und Aufenthaltsbereiche in kühlere Zimmer Ihrer Wohnung.

- **Geräte:**

Schalten Sie wärmeabgebende Geräte wie Fernseher oder Computer aus.

- **Zimmertemperatur:**

Behalten Sie die Zimmertemperatur mithilfe eines Messgerätes im Blick. Das Gerät sollte nicht direkter Sonneneinstrahlung ausgesetzt und an einem gut einsehbaren Ort im Schatten platziert werden.

- **Ventilator:**

Nutzen Sie einen Ventilator.

## 5.

## Medikamente und Hitze

Beachten Sie besonders während andauernder Hitzephasen auf die richtige Medikamenteneinnahme. Hitze kann Einfluss auf die Aufnahme, Verteilung, den Abbau und die Ausscheidung von Wirkstoffen nehmen. Manche Medikamente können:

- das Schwitzen vermindern
- die Körpertemperatur beeinflussen
- die Gefäße verengen
- und zum Verlust von Flüssigkeit führen

Starke Temperaturschwankungen können die Wirksamkeit einzelner Medikamente beeinflussen. Achten Sie auf die angegebenen Lagerungstemperaturen. Bei Unsicherheiten lassen Sie sich in Ihrer Apotheke oder von Ihrem Arzt/Ihrer Ärztin beraten.

**Tipp:** Vermerken Sie das Öffnungsdatum auf der Medikamentenverpackung und beachten Sie die Haltbarkeit nach Anbruch.



EINEN KÜHLEN KOPF BEWAHREN



## Weitere hilfreiche Tipps gegen Hitze

- Halten Sie sich im Schatten oder in klimatisierten Gebäuden auf.
- Erledigen Sie unvermeidbare Aktivitäten möglichst am Morgen.
- Tragen Sie leichte, lockere Kleidung und schützen Sie sich mit Sonnenschutz (Sonnenhut, Sonnenbrille, Sonnencreme).
- Informieren Sie sich in den lokalen Nachrichten über die aktuelle Wetterlage und Wettervorhersagen.

### Welche Auswirkungen hat Hitze auf den Körper?

Länger andauernde hohe Temperaturen können verschiedene Auswirkungen auf die eigene Gesundheit haben. Besonders gefährdete Personengruppen sind:

- Ältere Menschen
- Schwangere
- Säuglinge und Kleinkinder
- Menschen mit Vorerkrankungen und Behinderungen
- Menschen, die im Freien arbeiten

Hitzebedingte Gesundheitsprobleme können nicht immer einfach festgestellt werden. Einzelne Symptome können auch erst deutlich nach einem Aufenthalt in der Hitze auftreten. Wenn der Körper zu wenig Flüssigkeit erhält und Sie im Sommer stärker schwitzen als sonst, können bestimmte Symptome auftreten.

### Erste körperliche Warnsignale:

- Starke Kopfschmerzen
- Schwindel
- Erschöpfungs- oder Schwächegefühl, Bewusstseinsbeeinträchtigung
- Übelkeit und Erbrechen
- Kreislaufbeschwerden, Bewusstlosigkeit
- Ungewohntes Unruhegefühl
- Trockene Haut (z. B. Lippen)
- Konzentrierter Urin
- Muskel- oder Bauchkrämpfe
- Hohe Körpertemperatur  $> 39^{\circ}\text{C}$
- Gerötete Haut
- Herzrhythmusstörungen



EINEN KÜHLEN KOPF BEWAHREN





### Erste Hilfe im Ernstfall:

- Begeben Sie sich umgehend aus der Hitze bzw. der Sonne – Gebäude oder Unterstellmöglichkeiten wie Bäume bieten Sonnenschutz
- Lockern Sie Ihre Kleidung oder entfernen Sie beengende Kleidungsstücke
- Kühlen Sie mit feuchten, lauwarmen Tüchern Kopf, Nacken, Hände und Füße
- Trinken Sie ausreichend Flüssigkeit (Mineralwasser oder leicht gesalzenes Wasser)

**Vorsicht:** Dies gilt nicht bei Bewusstseins-eintrübung, hier besteht Erstickungsgefahr!

### Wann alarmiere ich den Rettungsdienst?

Rufen Sie bei folgenden Symptomen unverzüglich die Rettung:

- Wiederholtes, heftiges Erbrechen
- Plötzliche Verwirrtheit
- Bewusstseins-eintrübung mit reduzierter Ansprechbarkeit
- Bewusstlosigkeit
- Sehr hohe Körpertemperatur (oral gemessen über 39° C)
- Schwere Atemnot
- Krampfanfall
- Kreislaufschock



**Rettung: Notruf 144**

**Notruf für Gehörlose:  
DEC112 App**

**Achten Sie auf sich und auf andere.**

EINEN KÜHLEN KOPF BEWAHREN

### **imprint**

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