Draft Heat Wave Action Plan

Department of Revenue & Disaster Management, Government of Haryana

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List of abbreviations

Additional Chief Secretary and Financial
Auxiliary Nurse Midwife
Accredited Social Health Activist
Community Health Center
Early Warning System
Heat wave action plan
Information, Education and Communication
India Meteorological Department
Mobile Health Units
Haryana State Disaster Management Authority
Primary Health Center
Routine Immunization
State Institute of Health and Family Welfare
Urban Local Bodies

Chapter - 1 Introduction

• Introduction

Heat Wave Plan is a Plan intended to protect the population from heat related harm to

health. It aims to prepare for, alert people to, and prevent, the major avoidable effects on health during periods of severe heat, while the days are sunny in summer, It should not be forgotten that the temperature can get too high, and it can become uncomfortably hot, and for some, it can become dangerously hot putting their life at risk

• Heat Waves

Spells of abnormally high temperature that occur in different parts of the country during April to June are referred to as heat waves. The term "heat wave" is a description of prevailing temperature conditions relative to daily normal value. The IMD (India Meteorological Department) has laid down the following criteria for describing a heat wave or a severe heat Wave or a Warm Night:-

Heat wave is considered only after the maximum temperature of a station reaches atleast 40°C for plains and atleast 30°C for hilly regions.

• When actual maximum temperature of a station is more than or equal to 40°C.

Heat wave - Departure from normal temperature is soc -6°C Severe Heat wave - Departure from normal temperature is 7°C or more

- When actual maximum temperature is 4S°C or more, irrespective of normal maximum temperature, heat wave is declared.
- When actual maximum temperature is 47°C or more, irrespective of normal maximum temperature, severe Heat Wave is declared.

Warm Night is declared if actual maximum temperature of a station is more than or equal to 40°C and minimum temperature departure is more than or equal to 5°C.

Very Warm Night is declared if actual maximum temperature of a station is more than or equal to 40°C and minimum temperature departure is more than or equal to 7°C.

Coordinated action is needed among government departments/ agencies at the state level to reduce the devastating health effects of heat stress on local residents. A practical plan of targeted interventions can increase information-sharing, communication, preparedness, and response coordination to improve the most vulnerable populations' resilience to rising temperatures and consequently minimize heat wave fatalities.

Impact of Heat Wave on agricultural productivity

Apart from, impact on human life, the Heat Wave has also been found to profoundly affect crop production both in terms of quantity and quality. Primarily, crop loss happened due to flower drop and higher mortality in new plantations. Kharif crops are more impacted than Rabi crops owing to variability in rainfall associated with Heat Wave. Since, Kharif crops are sown in May to June and harvested in September to October; any extreme change in temperature would affect the productivity. Within Kharif, particularly rice production is significantly affected with decreased grain yield which is a matter of concern as rice is a staple diet of all Haryana's population.

Impact of Heat Wave on life and livelihood

The human thermoregulatory system has limits. Our muscles generate heat, which must be shed to the environment to maintain our core temperature of about 36.7^{0} C. Evaporation of sweat helps human bodies to keep cool when it is hot, however, when there is excessive sweating it leads to dehydration with consequent rise in internal body temperature which is fatal. When temperature soars beyond the tolerance limit, precautionary measures like avoiding the Sun and physical exertion, maintaining hydration, and resting in a cool place are suggested.

However, serious challenges arise when extreme heat events linger for prolonged periods, as cessation of activities for weeks is often not an option. Especially, migrants of other states are working in unorganized and informal sectors that have to earn their daily livelihood. Thus, on the advent of long spells of Heat Wave, they either have to stay indoors and compromise their source of income or run the risk of succumbing to Heat Wave related illness upon continuing to work. This necessitates exploring alternate options for such kind of vulnerable population for income generation to sustain a healthy life.

In view of the above, there is a need to revisit and strengthen the existing Heat Wave response plan in order to make it more specific and strategic.

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Chapter – 2

Institutional Mechanisms

Action Plan of Government of Haryana

The Deputy Commissioners will be instructed to take required precautionary measures for mitigating the heat-wave situation by the ACS &FCR (Dept of Revenue and DM), and the Chief Minister would also review the preparedness activities of the related departments. The chain of command that is followed after the issuance of a heat alert as depicted in figure 1 & 2.

Figure 1: Flow of information to be followed in Government of Haryana during a Heat Wave Alert

Figure 2: Institutional mechanism for Heat Wave

Haryana State Disaster Management Authority (HSDMA)

IMD

State Executive Committee (SEC) HARSAC

CDM, HIPA Revenue and DM department

District Disaster Management Authority (DDMA)

Block

Gram Panchayat

Village

India Meteorological Department

IMD gives a Heat Wave forecast particularly during the months of March to May. The cut off temperatures for Heat Wave forecast is

- $>37^0$ C for the coastal areas
- $> 40^{\circ}$ C for the interior areas

The IMD provides warnings based on heat index (based on temperature and humidity) as follows:

- Issue early warning and disseminate heat alert to all the key stakeholders
- Issue bulk emails to the key institutions/ key offices and persons.
- Media brief using TV/ Radio/ FM/ Newspapers
- Provide meteorological data for Heat Wave study and research for better mitigation activities.

Haryana State Disaster Management Authority (HSDMA)

Immediately upon receipt of heat wave warning, the State and District Emergency **Operation Centres** make necessary arrangements for flashing the warning through all forms of media. Simultaneously, departments of Health and Family Welfare, School and Mass Education, Labour dept, Industrial Safety & Health, Transport, Public Health Engineering & Agriculture, Animal Husbandry and other related departments remain alert and put necessary emergency measures in place. The HSDMA is the nodal agency which is responsible for the prevention and mitigation activities. The most important work of the HSDMA is to sensitize the necessary stakeholders, engage in their capacity building in forms of intra- departmental trainings and prepare and share the guidelines for different occupational groups, institutions, urban local bodies, PRI and civil societies. The HSDMA acts as the main executing body under the leadership of the Additional Chief Secretary & Financial Commissioner (Revenue & Disaster Management) during a Heat Wave condition and issues directives to all the concerned governmental and nongovernmental organizations for a prompt action. Apart from this, the HSDMA also involved in establishing the Heat Wave related mortality tracking system and updating the data set periodically. The HSDMA would also ensure the following activities:

- Constitute State Steering Committee for strengthening the state heat wave action plan
- Convene State Steering Committee meetings to review and update the heat wave action plan annually and share the revised heat wave action plan in a broader platform
- Periodic coordination meetings with all the departments towards implementation of heat wave action plan
- Incorporate and update information related to Heat Wave in the existing website of HSDMA.
- Review of current IEC initiatives and accredit all IEC materials along with knowledge partners
- Promote research on heat related morbidity, mortality and mitigation measures in collaboration with knowledge partners located in the state.
- Organize capacity building programs on Heat Wave prevention and management for different stakeholders.
- Mobilization of funds for heat wave action plan review, documentation and Heat Wave management.

Department of Revenue & Disaster Management

Under the leadership of the Additional Chief Secretary & Financial Commissioner (Revenue & Disaster Management), following activities are undertaken by the different departments during the summer season:

- Posters on safety tips relating to heat-wave should be prepared and distributed by Health & Family Welfare Department and HSDMA for general awareness of the public. Advertisements on such safety tips should also be given through local newspapers, radio and private television channels.
- All India Radio, Doordarshan and other private television channels may be instructed to organize discussions and other programmes for creating awareness.

- Action plan of Public Health Engineering, Irrigation, HUDA, Urban Local Bodies, Panchayati Raj for mitigating water scarcity problems in different urban and rural areas, where acute scarcity of drinking water is felt, is prepared. Drinking water should be made available at Bus stand, Market places and other public places. Required numbers of water tankers should be deployed for supply of drinking water and defunct tube wells are replaced / repaired. The Department of Irrigation and Water Resources gives order for the release of water in the canals.
- Essential medicines, saline and ORS packets are stored in the District Headquarters Hospitals, Community Health Centers and Primary Health Centers. Special arrangements are made and separate beds earmarked for treatment of heat-stroke patients in civil Hospitals as well as other private hospitals. If required, take assistance of private hospitals. Private hospitals should also be instructed to make repository of data of patients suffering from heat wave and, should be submitted to Civil Surgeon of respective districts.
- The department of labour, Industrial Safety and Health may ensure the rescheduling the working hours of daily labourers i.e. from 6 a.m. to 11a.m. and 3.30 pm to 6 pm. Orders may be given to make provision of drinking water at the work sites.
- The Department of Haryana Roadways should ensure the plying of buses during peak hours i.e. between 11.00 AM to 3.30 PM regulated. Orders may be given to carry potable water and ORS in public transport vehicles.
- Power distributing companies should be instructed to ensure uninterrupted power supply during the summer.
- The Department of Education may ensure that time table of the schools is rescheduled from 6.30AM to 10.30 AM, and the availability of potable drinking water. They should also ensure to keep ORS packets and First Aid medicines related to heat wave.

Ex-Gratia Relief

There is no provision in the items and norms of expenditure for incurring expenditure from the State Disaster Response Fund (SDRF) & National Disaster Response Fund (NDRF) to provide relief to the victims of 'Heat Wave'. In this

regard, the State Government can incur such expenditure from the Chief Minister's Relief Fund (CMRF). The State Govt. can also declare Heat Wave as a "State Specific Disaster" norms & can make provision for payment of ex-gratia of Rs. (to be decided by the State Govt.) to the next of kins of the sunstroke victims.

Chapter-3

StandardOperatingProceduresfor Different Departments

• Health Services

- Infrastructure and Logistic –
- At all health institutions earmarked beds should be kept in readiness at a cool well ventilated space.
- In the CHC / PHC wherever A.C & Coolers are available to be utilized in the heat stroke room.
- Provision of Ice & Ice cold water at CHC & PHC as per requirement &

availability.

- Cold water should be stored in earthen pots in each health institution.
- ORS Booth should be opened at all health institutions.
- All Ambulances & other PHC vehicle to be kept in roadworthiness for referral of patients.
- Sensitization of Medical Officers & Paramedical workers
- Review Meeting Meeting of Nodal officers at State / District & Block level to be conducted to review the preparedness activities and create awareness about the dangers of Heat Wave and to inform individuals how to minimize the risk.
- All categories of health personnel should be sensitized on heat stress disorders, prevention and management.
- Drugs and Logistics: Pre-position of Supplies Provision for adequate supply of ORS, IV fluids, life saving medicines all health institutions and ASHA & Anganwadi workers as per the suitability. Ensure that the essential drugs reach the destination sufficiently ahead.
- Strengthen the control rooms for providing heat related information
- Maintaining data base and surveillance on heat related morbidity and mortality.
- Provision for Health facility readiness to manage heat affected patients (beds, staff, inventories, ambulance etc.).
- Special attention towards high risk patients like geriatric/ pediatric/pregnant women etc.
- Training of 'Mobile Health Units (MHU)' for management of heat related cases
- Establishment of mobile base alert system through the ASHA/ ANM/ health workers for effective and immediate assessment of heat stroke cases.
- Development of specific reporting form for heat related events including morbidity and mortality.
- Coordinate with private hospitals to collect heat related morbidity and mortality data.
- Provision of power back up during summer.
- Provision of funds for Heat Wave management.
 - IEC Activities –

- An intensive IEC campaign to be launched to keep people informed about Do's & Don'ts as regards exposure to Heat Wave, fluid intake, regulation of work, clothing, protective device & work environment during the Heat Wave period.
- Leaf lets to be distributed & Poster displayed at strategic places.
- IEC campaign through print & electronic media to be conducted through SIHFW.
- Capacity building of Health Care Service Providers (Doctor, Nurses, Pharmacist and health workers) on diagnosis and management heat related illness.
- Display do's and don'ts of Heat Waves in village areas

• Urban Development

- Give directives to Urban Local Bodies (ULBs) /Development Authorities to increase access to public parks, water bodies, public libraries for general public.
- Create small, accessible green spaces by using vacant spaces such as side lots, parking medians, spaces between buildings and roads.
- Keep large public parks open during peak hours to provide cool resting spaces for the public.
- Give directives and ensure cool roofs initiative to paint roofs white (albedo paint), create green roofs and walls, and plant trees in neighborhoods to keep them cool.
- Develop a strategy to incorporate the green belt concept in urban planning, evaluate the efficacy of these initiatives and the highest priority locations for intervention.
- Issue directives to ULB/Development Authorities for use of K-glass, doubly glazed glass in buildings and vehicles which prevent the extra entry of heat inside.
- Provision of funds in the departmental budget for capacity building.
- Implement building codes that entail passive cooling practices such as increased reflectivity of building roofs, green roofs, increased natural ventilation and rainwater harvesting. Incentive mechanisms (e.g., reduced taxes) can be used to accelerate green infrastructure development.

- Promote green energy technology, energy efficient building promotion, restricted use of heat producing equipment, and increasing use of renewable energy
- Provision of funds for Heat Wave management.

• Urban Local Bodies

- Display heat alerts and precautionary measures at strategic points.
- Providing shelter and shades in open and high congregation places
- Opening of the parks during peak hours
- Providing drinking water through water kiosk (Jal Chhatras) at strategic points
- Water supply to slums through tankers.
- Public announcements through public address system.
- Restrict plying of city public transport.
- Provision of ice pack, first aid and water at City public transport vehicles plying during peak hours.
- Provision of vats (near tube wells) for drinking water for animals
- Provision for Water sprinkling to settle down the suspended particles on roads.
- Issue advisories for Albedo painting of office building /houses/apartment/schools/hospitals and other buildings
- Provision of funds for Heat Wave management.

• Panchayati Raj

- Prepare Vulnerability map.
- Sensitize vulnerable population on Heat Wave
- Public announcement about the do's and don'ts issued by the department of Health and family welfare and HSDMA.
- Provision of water kiosks, tube wells, tankers at strategic locations.
- Provision of funds in department budget for capacity building.
- Encourage for alternative livelihood activities.
- Construction of ponds, artificial lakes for cooling the environment by evaporation
- Provision of funds for Heat Wave management.

- Labour
- Issue directives for flexible working hours to restrict heat exposure.
- Guideline for workers to protect from heat exposure and provision of First Aid, drinking water and cooling space at work site.
- Awareness activities for construction workers, factory laborers, manual laborers and workers whose occupations require intensive work outdoors during extreme heat about the risks, signs, and symptoms of heat stress
- Training on heat illness diagnosis and management for factory medical officers.
- Advisory for one A/C relief chamber at factory facilities for emergency
- Ensuring health centers/dispensary are open during peak summer hours
- Ensure overseeing construction sites, quarries, factories and other vulnerable worksites, particularly during high temperature periods, to enforce labour laws related to heat safety.
- Provision of funds for Heat Wave management.

• Education

- Ensure Avoidance of physical activities during school hours
- Issue directive for Albedo painting on school roofs
- IEC activities on Heat Wave prevention and management in schools
- Promote School Safety Plan
- Encourage Plantation of trees and promote green campus
- Provision for safe drinking water
- Training to the teachers and mock drills among students via special workshops and classes on identification, health risks and the subsequent management during Heat Waves.
- Provision of funds for Heat Wave management.

• Electricity

- Create awareness among people on energy conservation
- Develop a policy for power cuts depending on vulnerable areas and population

- Guideline for workers of the department
- Power shedding should be cut down/reduced during severe heat (frequency and timing)
- The timing should be announced before atleast one day in advance.
- Frequency and regularities should be maintained
- Provision of power back up for life line institute
- Provision of funds for Heat Wave management.

• Haryana Roadways

- Provision for Creating awareness among drivers and other staffs
- Issue a guidelines for each public transport to address Heat Wave
- Restriction of plying times.
- Provision of safe drinking water, ice pack, ORS in buses and provision of cool resting spaces at bus stops.
- Provision of water kiosk on highways
- Provision of funds for Heat Wave management.

• Irrigation and Water Resources

Release water in canals during summer.

• Industrial Commerce

- Issue directives for Heat Wave prevention and management for industries and mines.
- Generate awareness through IEC activities.
- Provision for water sprinkling to settle down the suspended particles.
- Provision of funds for Heat Wave management.

• Tourism

- Ensure availability of heat relief measures at tourist places
- Display of Heat Wave precautionary measures for tourists during summer at tourist points and related information in website of department of tourism.
- Ensure the availability of drinking water and cool resting sheds
- Restrict the timing of the visit of tourist places during peak summer days

• Provision of funds for Heat Wave management.

• Women and Child Development Department

- Use the Village Health Nutrition Day (VHND) and RI sessions for creating awareness and educate young girls and mothers regarding the dangers of Heat Waves, its related health impacts and the precautionary measures to be taken.
- Display IEC materials at Anganwadis and encourage integrated child development scheme (ICDS) workers to disseminate Heat Wave related information with special focus on infants, children below five years, pregnant and lactating mothers, and geriatric population to protect them from dehydration.
- Provision of drinking water and first aid at all the Anganwadi Centers, old age homes, orphanages.
- Provision of funds for Heat Wave management

• Department of Forest

- Directive for making water available for animals in reserved/ protected forests and make necessary provisions, where necessary.
- Issue directives to the Zoo Authorities for special arrangements for the animals in zoo to protect them from the effect of Heat Wave.
- Provision of drinking water like ponds/water bodies for wild life
- Directive for provision of water to human habitations facing water scarcity inside reserved forests
- Promote rain water harvesting
- Provision of funds for Heat Wave management.

• Animal Husbandry

- Construction near tube wells/ repair of vats may also be ensured for roaming livestock to provide them with drinking water.
- Public Awareness campaign about the do's and don'ts for livestocks should also be done. Do's and Don'ts should be prepared by department itself.
- Civil Society Organizations/ Corporate Social Sectors

- To support the Govt. departments in generating awareness in community
- Coordinate with government for implementing the Heat Wave management measures
- Support in setting up Jal Chhatras (water kiosks) on high ways, remote places
- Distribute IEC materials duly accredited by the state health department and HSDMA
- Promoting healthy living style during summer
- Support the state government in establishing shelter and sheds

Annexure

Heat Illness - Treatment Protocol

Recognizing the treatment protocols which may vary slightly according to the setting (EMS, health centre, clinic, hospital emergency department, etc.), The following should apply generally to any setting and to all patients where there is a potential concern for heat illness. Special thanks to Drs. Arthur Yancey and Mould-Millman of Grady Emergency Medical Services, Emory University Department of Emergency Medicine, Atlanta, GA USA.

- Initial patient assessment -primary survey (airway, breathing, circulation, disability, exposure), vital signs, including temperature.
- Consider heat illness in differential diagnosis if:
 - Presenting with suggestive symptoms and signs (see table)
 - Patient has one or more of the following risk factors:
 - Extremes of age (infants, elderly)
 - Debilitation / physical de conditioning, overweight or obese
 - Lack of acclimatization to environmental heat (recent arrival, early in summer season)
 - Any significant underlying chronic disease, including psychiatric cardiovascular, neurologic, hematologic,

Obesity, pulmonary, renal, and respiratory disease

- Taking one or more of the following:
 - Sympathomimetic drugs
 - Anticholinergic drugs
 - Barbiturates
 - Diuretics
 - Alcohol
 - Beta blockers
- Remove from environmental heat exposure and stop physical activity.
- Initiate passive cooling procedures.
 - cool wet towels or ice packs to axillae, groin, and around neck; if patient is stable, may take a cool shower, but evaluate risk of such activity against gain and availability of other cooling measures.
 - Spray cool water or blot cool water onto skin.
 - Use fan to blow cool air onto moist skin.
- If temperature lower than 40°C, repeat assessment every 5 minutes; if improving, attempt to orally hydrate (clear liquids, ORS can be used but not necessary cool liquids better than cold) and observe.
- If temperature 40° C or above, initiate IV rehydration and immediately transport to emergency department for stabilization.

	Case Definitions						
Heat	Heat Illness - Typical Presentations						
Sr.	Sr.ClinicaAgeSettingCardinalCardinalPertinentPrognosis						
No	l Entity	Range		Symptoms	Signs	Negatives	
•							

1	TT4	A 11	Hat	Itahar as -1-	D:ff.	Not fac-11	Enll construction
1	Heat	All,	Hot	Itchy rash	Diffuse	Not focally distributed	Full recovery
	rash	but	environme	with small red	maculopapular		with
		freque	nt; +/	bumps at	rash,	like a contact	elimination
		ntly	insulating	pores in	occasionally	dermalitis;	of exposure
		childre	clothing of	setting of heat	pustular, at	not confluent	and
		n	swaddling	exposure;	hair follicles,	patchy; not	supportive
				bumbs can	pruritic	pelechial.	care.
				sometimes be			
				filled with			
				clear or white			
	TT	A 11	TT (fluid		NT	F 11
2	Heat	All	Hot	Painful	Uncomfortable	No	Full recovery
	Cramp		environme	spasms of	appearance	contaminated	with
	S		nt,	large and	may have	wounds/tetan	elimination
			typically	frequently	difficulty fully	us exposure;	of exposure
			with	used muscle	extending	no seizure	and
			exertion, +/-	groups.	affected limbs/Joints.	activity.	supportive
					ninds/joints.		care.
			insulating				
3	Heat	All	clothing. Hot	Feeling	Sweety/dianho	No	Full recovery
3	exhaus	All	environme	overheated,	Sweaty/diapho retic; flushed	coincidental	with
	tion		nt; +/-	lightheaded,	skin; hot skin;	signs and	elimination
	uon		exertion;	exhausted and	normal core	symptoms of	of exposure
			+/-	weak		infection; no	and
			insulating	unsteady,	temperature; +/- dazed, +/-	focal	supportive
			clothing or	nauseated,	generalized	weakness; no	care;
			swaddling.	sweaty and	weakness,	aphasia/dysar	progression
			swadding.	th1rsty,	slight	thria; no	if continued
				inability to	disorientation.	overdose	exposure.
				continue	disorientation.	h1story.	exposure.
				activities.		mistory.	
4	Heat	Туріса	Hot	Feeling hot	Brief,	No seizure	Full recovery
-	Syncop	lly	environme	and weak;	generalized	activity, no	with
	e	adults	nt; +/-	light	loss of	loss of bowel	elimination
	-		exertion;	headedness	consciousness	or bladder	of exposure
			+/-	followed by	in hot setting,	continence,	and
			insulat1ng	brief loss of	short period of	no focal	supportive
			clothing or	consciousness	disorientation	weakness, no	care;
			swaddling.	•	if any.	aphasia/dysar	progress1on
						thria.	if continued
							exposure.
L	I	1		<u> </u>	<u> </u>	1	-

5	Heat	All	Hot	Severe	Flushed, dry	No	25-50%
	stroke		environme	overheating;	skin (not	coincidental	mortality
			nt, +/ -	profound	always) core	signs and	even with
			exertion;	weakness;	temp 40°c	symptoms of	aggressive
			+/-	disorientation;	altered mental	infection ; no	care;
			insulating	obtundation,	status with	focal	significant
			clothing or	seizures, or	disorientation,	weakness; no	morbidity of
			swaddling.	other altered	possibly	aphasia/	survive
				mental status.	delirium,	dysarthria;	
					coma, seizures;	no overdose	
					tachycardia;	history	
					+/-		
					hypotension.		

Heat illness - Case Definitions 6 Clinical Entity Case Definition 7 Heat rash Diffuse pruitie, maculopapular or vesicular rash in the setting of heat exposure, often with insulating clothing or swaddling. 8 Heat rash Painful contractions of frequently used muscle groups in the setting of heat exposure, exposure, often with exertion.

		exposure, orem with exercicit.				
9	Heat	Syndrome of generalized weakness and or exhaustion, often with light-				
	exhaustion	headedness, limiting functioning in a hot environment, without history of recent				
		infection. May or may Not be exceptional.				
10	Heat	Brief loss of consciousness in the setting of heat exposure without evidence of				
	Syncope	seizure activity, stroke, or medication overdose.				
11	Heat	Altered mental status (including disorientation, delirium, seizure, obtundation)				
	stroke	with elevated core body temperature $\geq 40^{\circ}$ C in the setting of heat exposure,				
		without signs of stroke, history of infection, or signs of medication overdose. May				
		or may not be exceptional.				

DO's

- Try to stay in cold places
- Use umbrella during hot days
- Wear thin, loose cotton garments, preferably of white colour
- Wear a hat of cotton or a turban
- Avoid outdoor physical activity from 12-3 PM. If unavoidable, attend to only light physical activity under the hot sun

- Take ample water along with salted butter milk or glucose water
- Take measures to reduce the room temperature like watering, using window shades, fanning, and cross ventilation
- Shift the person with heat stroke symptoms to cool dwelling
- The person suffering with heat stroke should have minimum clothing
- The person suffering with heat stroke has to be sponged with cold water, indirect application of ice-packs
- The person suffering with heat stroke should be kept in between ice-blocks
- If the person affected with heat stroke is not showing any improvement, he should be shifted to a hospital immediately preferably with cooling facility

Don'ts

- Expose to direct sunlight or hot breeze
- Move under hot sun without umbrella
- Use of black and synthetic, thick clothes during summer season
- Move under the hot sun without a hat or turban.
- Attend to strenuous physical activity under the hot sun
- Allow direct hot air into the living room
- Delay in shifting the person suffering with heat stroke to a cool place
- The person suffering with heat stroke to have thick clothing
- The person suffering with heat stroke to be sponged with hot water and to be exposed to hot air.
- The person suffering with heat stroke to be sponged with hot water and to be exposed to hot air.