



World Para Athletics Heat Countermeasure Policy

WPA Rules and Regulations art. 6.9

World Para Athletics

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IPC Document (WPA Heat Countermeasure Policy)

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1. This Policy will be effective for the following events and competitions: IPC Games and IPC Competitions (WPA Regulations 3.1.2 a and b)
2. For all other WPA sanctioned and approved competitions, WPA expects the Local Organizing Committee to implement reasonable measures that are in line with this Policy.
3. International sporting competitions in hot and/or humid environmental conditions require specific emphasis being placed on preparing athletes for potentially challenging conditions on the one hand, and operational measures being considered to mitigate any adverse impact of such conditions on athletic performance.
4. Para athletes may face unique challenges related to thermoregulation and hydration by nature of their impairment.
5. The international standard for monitoring heat measures is the use of Wet Bulb Global Temperature (WBGT) which incorporates measurements of radiant heat and air water content. It is measured with portable monitors.
6. The American College of Sports Medicine (ACSM) Position Stand on Exertional Heat Illness During Training and Competition (ACSM, 2007) provides the following guidance for the modification or cancellation of workouts or athletic competition for healthy adults:

WBGT (°C)	Non-Acclimatized, Unfit, High-Risk Individuals	Acclimatized, Fit, Low-Risk Individuals
>32.3	Cancel exercise.	Cancel exercise un-compensable heat stress exists for all athletes.
30.1-32.2	Cancel or stop practice and competition.	Limit intense exercise and total daily exposure to heat and humidity; watch for early signs and symptoms.
27.9-30.0	Increase the rest:work ratio to 1:1, decrease intensity and total duration of activity. Limit intense exercise. Watch at-risk individuals carefully.	Plan intense or prolonged exercise with discretion; watch at-risk individuals carefully.

25.7-27.8	Increase the rest:work ratio; decrease intensity and total duration of activity.	Normal activity. Monitor fluid intake.
22.3-25.6	Increase the rest:work ratio and decrease total duration of activity.	Normal activity. Monitor fluid intake.
18.4-22.2	Increase the rest:work ratio. Monitor fluid intake.	Normal activity.
10.1-18.3	Normal activity.	Normal activity.
≤ 10.0	Normal activity.	Normal activity.

7. World Athletics (WA) provides the below guidance in their Competition Medical Guidelines (January 2013).

WBGT	Flag grading	Level of risk
>28	Black	Extreme risk.
23-28	Red	High risk.
18-23	Yellow	Moderate risk.
<18	Green	Low risk.
<10	White	Hyperthermia, but increasing risk for hypothermia.

8. Considering the above guidelines, and complemented with previous experiences and a systematic monitoring of environmental conditions at previous WPA events (Grobler et al, 2019), WPA has adopted the following guidelines:

- a. Careful consideration being given to the development of the WPA event competition schedule when extreme environmental conditions are anticipated. Special attention required to:
 - i. events with prolonged exposure to environmental conditions (e.g. long-distance disciplines, seated throwing disciplines).
 - ii. events for athletes with high support needs, that typically might have unique challenges to adapt to extreme environmental conditions.
- b. Local Organizing Committee to provide timely information to athletes and delegations on anticipated environmental conditions, where possible with reference

meteorological values for location and time frames during which the event is due to be held.

- c. Activation of this WPA Heat Countermeasure Policy when Wet Bulb Global Temperature reaches 30.1 degrees Celsius.
9. If the WBGT is above 30.1 degrees Celsius, the Dedicated person appointed by WPA responsible for the measurement will inform the WPA Athletics Competition Manager and/or Technical Delegate(s).
 10. The WBGT is checked 15 minutes after the initial reading. If it is still over 30.1 degrees Celsius, the WPA Dedicated person will notify the WPA Athletics Technical Delegate(s), who will coordinate a meeting with an Incident Management Team, including the following persons:
 - a. WPA Athletics Competition and Event Operation Leads
 - b. Technical Delegate(s)
 - c. WPA Medical Delegate
 - d. LOC Competition and Event Operation Leads
 - e. LOC Chief Medical Officer
 - f. Any other person as deemed appropriate or necessary (e.g. local public health authorities)
 11. The Incident Management Team will decide on an appropriate action plan. Possible interventions include:
 - a. Review and/or upscale of all available preventive strategies, such as ice/cold water supply, shelter opportunities, (moisture) fans, (ice supply: 2kg/person/day)
 - b. Review of the timing of events.
 - c. Providing additional breaks for field events and/or allow for athletes to take shelter in the athletic facility while waiting for their individual performance to be delivered.
 - d. Postponing/rescheduling or cancellation of certain events.
 12. Operational implementation of this policy:
 - a. WBGT measurement will ordinarily be taken on an hourly basis on the basis of meteorological forecasts.
 - b. WBGT will be measured by a WPA representative on the infield in a position under direct exposure of the sun, as agreed with the Technical Delegate.
 - c. WBGT measures will ordinarily be recorded in a log sheet in the Competition Management Office.

- d. WBGT measurement outcomes will ordinarily be publicly displayed in the call room at both the competition venue and warm-up/training side.
13. In addition to provisions put in place for athletes, WPA will be responsible to also ensure health and well-being measures for its officials. Possible interventions include:
- a. Continued ice / cold water supply
 - b. Ensure access to shaded areas and/or provide for (moisture) fans
 - c. Shorten operational duty periods and/or allow for rotation of officials
 - d. Anticipate for environmental conditions through supply of sun protection aids (creams, hats) and/or allow for modifications to official dress
14. At events with extreme environmental conditions, data will be collected to assist WPA to further investigate heat stress in Para athletes and optimize these guidelines from time to time.

References:

- American College of Sports Medicine (2017). Exertional Heat Illness during Training and Competition – ACSM Position Stand. *Medicine and Science in Sports and Exercise*, 556-572.
- Grobler, L., Derman, W., Racinais, S, Ngai, A.S.H, Van de Vliet, P. (2019). Illness at a Para Athletics Track and Field World Championships under hot and humid ambient conditions. *Physical Medicine and Rehabilitation*,