

Dancer Health Tips: Heat-Illness and Dehydration

Dancers can find themselves in a variety of challenging performance situations. During exercise, evaporation is usually the primary mechanism of heat dissipation. The evaporation of sweat from the skin's surface assists the body in regulating core temperature. If the body cannot adequately evaporate sweat from the skin's surface, core temperature rises rapidly. A side effect of sweating is the loss of valuable body fluids. The rate of fluid loss is related to exercise intensity, individual differences, environmental conditions, acclimatization state, clothing, and baseline hydration status. Dehydration of 1% to 2% of body weight begins to compromise physiologic function and negatively influence performance. Dehydration of greater than 3% of body weight further disturbs physiologic function and increases an athlete's risk of developing an exertional heat illness (ie, heat cramps, heat exhaustion, or heat stroke).

Recognition of Heat Illness

- Dehydration thirst
- Sweating & fatigue
- Muscle cramps
- Heat exhaustion
- Elevated core body temperature
- Dehydration
- Dizziness or lightheadedness
- Headache
- Cool, clammy skin
- Heat stroke
- High body core temperature
- Drowsiness or confusion
- Irritability, hot and wet or dry skin
- Nausea or vomiting
- Rapid pulse or heart rate
- Possible loss of consciousness

Tips to Reduce Your Risk of Heat Illness

- Be aware of heat illness symptoms
- Keep hydrated
- Monitor weather and temperature conditions
- Modify activity and take more frequent breaks
- Wear clothing appropriate for the heat
- Match fluid intake with sweat and urine losses
- When the body is properly hydrated, urine output is clear/light and color should be monitored between performances to avoid the cumulative impact of dehydration over time.
- Use sports drinks in extreme conditions to replace electrolytes
- Use cooling fans or air conditioning
- Use ice or cold baths for active cooling of trunk and extremities

Both air temperature and the relative humidity can contribute to heat illness. Other considerations for the dancer are lack of air motion and other sources of radiant heat such as stage lights, etc. A performer can increase their risk factors for dehydration when costuming prevents evaporation or absorbs heat, acclimatization to the region has not occurred, rest is inadequate for exertion levels, or a concurrent illness or medications impact their health status.

Summary of outside temperature risks for those engaged in active exertion.

Category	Heat Index	Possible Heat Disorders for People in High Risk Groups
Extreme Danger	130°F (54°C) or higher	Heat stroke or sunstroke likely.
Danger	105 - 129° F (41 - 54° C)	Sunstroke, muscle cramps, and/or heat exhaustion likely. Heat stroke possible with prolonged exposure and/or physical activity.
Extreme Caution	90 - 105°F (32 - 41°C)	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	80 – 90°F (27-32°C)	Fatigue possible with prolonged exposure and/or physical activity.

Proper Hydration in Athletes & Performers

Before Rehearsal/Performance	During Rehearsal/Performance	After Rehearsal/Performance
7.5-15 oz. of cool fluid, 4 hours prior. (5-7ml/kg body weight)	-Drink 6-8 oz. of cool fluid for every ½ hour of activity.	Drink at least 20 oz. of cool fluid for every pound of body weight lost during activity.
6-10 oz. of cool fluid, 20 min prior. (3-5ml/kg body weight)	-Amount of fluid intake should equal or exceed sweat and urine loss.	Fluid intake should occur within 2 hours of activity.

Disclaimer

The information on exertion heat illness tips listed above are to help guide and inform the dancer and training staff, it is not meant to take the place of the advice of a medical professional. This information is provided by Dance/USA Task Force on Dancer Health.

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