**Performing in Heat;**

**Awareness and Actions**

**To Avoid Illness and Dehydration**

Performing in hot weather conditions.

Performers can find themselves in a variety of challenging 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, acclimatisation 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 a performer’s risk of developing an exertional heat illness (ie, heat cramps, heat exhaustion, heat stroke or the advancement of fits).

Recognition of Heat Illness

• Heat stroke - The body’s failure to cool itself, resulting in multiple symptoms listed here:-

• Sweating & fatigue

• Muscle cramps

• Heat exhaustion

• Elevated core body temperature

• Dehydration & Dehydration thirst

• Dizziness or light-headedness

• Headache

• Cool, clammy skin

• 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

How to Reduce The Risk of Heat Illness

* Monitor weather and temperature conditions during the 2023 run of Treasure Islands shows:

The on duty tech manager will take a daily ‘real feel’ air temperature reading in the performance area. Temperatures exceeding 31ºC will be reviewed with the performers, and acted upon by the whole show team if deemed unsafe for physical activity. This temperature of 32ºC+ advises ‘extreme caution’ in the table listed below.

* Adapt elements of the performance, as agreed in advance with the whole show team.
* Use fans to move the hot air in between shows
* Pace activities outside of performances to leave adequate prep and recovery times
* Be aware of heat illness symptoms and keep the symptoms in mind when working
* Hydrate before performance
* Keep hydrated during performance
* Performing team to keep communicating about any challenges due to the heat
* Wear costumes appropriate for the heat, layers of which can be removed during performance
* Use special microfibre ‘cool snap’ head towels soaked in ice water during show
* Match fluid intake with sweat and urine losses
* Use sports drinks in extreme conditions to replace electrolytes
* Use cooling fans
* Use ice or cold baths for active cooling of trunk and extremities
* Keep ice in quantity backstage
* Review the conditions and strategies at regular intervals with performers and Bluestone
* Check for pre-existing conditions within team - affected by heat stroke in the past
* Limit number of consecutive ‘hot’ shows and activity outdoors to avoid accumulation of risk

When the body is properly hydrated, urine output is clear/light and colour should be monitored between performances to avoid the cumulative impact of dehydration over time.

The body can take several days to recoup its hydration after even a mild bout of dehydration

Both air temperature and the relative humidity can contribute to heat illness.

A performer can increase their risk factors for dehydration when costuming prevents evaporation or absorbs heat, acclimatisation 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 | 54°C or higher | Heat stroke or sunstroke likely. |
| Danger | 41 - 54° C | Sunstroke, muscle cramps, and/or heat exhaustion likely. Heat stroke possible with prolonged exposure and/or physical activity. |
| Extreme  Caution | 32 - 41°C | Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity. |
| Caution | 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** |
| --- | --- | --- |
| **2ltr - 5ltr** of cool fluid, 4 hours prior. **(2.5ltr per kg body weight)**  **2.5ltr**. of cool fluid, 20 min prior. | Drink **2ltr**. of cool fluid for every 30 mins of activity.  Amount of fluid intake should equal or exceed sweat and urine loss. | Drink at least **6ltr** of cool fluid for every pound of body weight lost during activity.  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 performers and theatre staff, it is not meant to take the place of the advice of a medical professional.*