IGF Extreme Heat Guidelines for Golf
Background

The IGF Extreme Heat Guidelines have been developed following consultation with the IGF Medical Commission, senior medical staff and managers of the PGA European Tour, the PGA Australasian Tour, the PGA Tour, the R&A, members of the IOC Medical and Scientific Commission and golfers.

These Guidelines are not mandatory. It is up to each tournament organiser to determine specific courses of action, based on the circumstances of the tournament. These guidelines will be subject to review every four years (next due 2023).

Introduction

Risks associated with exercise in extreme heat/ humidity include underperformance, heat illness, heat stroke, and death. Risks/ heat illness in the context of golf can apply to players, caddies, event staff, and spectators.

Playing or caddying at golf tournaments provides moderate intensity physical activity for most persons (1). While the lessened intensity of exercise compared to for example athletics, or tennis (2) decreases risk of heat illness, exercise in the extremes of heat and/ or humidity can be expected to have negative health consequences for some persons.

This document outlines guidance for persons exposed to these conditions, and for those responsible for the planning and hosting of golf tournaments that can be expected to be subject to challenging environmental conditions (4, 5).
1. **Risk factors for heat illness:**

   (a) Increasing heat/ humidity and risk of heat illness at professional golf tournaments.

<table>
<thead>
<tr>
<th>Air temperature (Celsius)</th>
<th>Relative Humidity</th>
<th>Risk of heat illness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>Very low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>Up to 100%</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>26-30</td>
<td>&gt;60%</td>
<td>Moderate</td>
<td>Risk increases with increased air temperature, and increased humidity</td>
</tr>
<tr>
<td>31-37</td>
<td>&gt;30%</td>
<td>High</td>
<td>Risk moderate with temperature in this range, even with lower humidity. Consider risk mitigation strategy.</td>
</tr>
<tr>
<td>&gt;37</td>
<td>0</td>
<td>Very high</td>
<td>Progressively higher with increasing air temperature and humidity. Mitigation strategies required. Consider postponement.</td>
</tr>
</tbody>
</table>

The presence of wind, or increased air flow decreases risk (3).

   (b) Lack of acclimatisation to heat/ humidity.

   (c) Topography of course (hilly, or considerable walking between tees increases risk).

   (d) Individuals who have previously suffered heat injury.

   (e) Females, children, the elderly and those with increased Body Mass Index are at increased risk.

   (f) Lack of access to heat illness mitigation strategies.

2. **Strategies for reducing risk of heat illness**

2.1 **Event scheduling**

   (a) Where possible, events should be scheduled to avoid locations and conditions leading to inevitable high-risk of extreme temperatures (for example the Middle East in summer).

   (b) Subject to event type and scheduling, if high thermal strain conditions are anticipated, consideration of timings to avoid exposure to the hottest part of the day should be considered.
2.2 Pre-event strategies for reducing heat illness for players, caddies, staff and spectators

(a) Adequate acclimatisation to hot and/or humid conditions. Full acclimatisation can take 10-14 days

(b) Information provided to players, caddies, staff and spectators regarding
   i) optimising hydration
   ii) having appropriate clothing, and sunscreen available
   iii) seeking shade (umbrellas, on course structures) where possible

(c) Planning and provision of
   i) Shade and Cooling Stations around the course
   ii) Fluid, preferably cooled to drink available for players, caddies, staff and spectators
   iii) Medical facilities and personnel that can rapidly assess and treat persons exhibiting heat illness.

2.3 Strategies during event for reducing heat illness for players, caddies, staff and spectators

(a) Consider precooling strategies prior to play e.g. ice vest

(b) Provide shade (natural, structures, or umbrellas), and cooled water and electrolyte drinks on each hole during events with expected high, or very high thermal strain.

(c) Provide cooling stations around the course, including fans / mist and ice slushee drinks to facilitate rapid cooling.

(d) Maintain hydration via intake of approximately 500ml per hour and limiting sweating by seeking shade as able.

(e) Choose light coloured, loose fitting clothing with high wicking/ breathability.
   Consideration may be given to permitting a mid round change of shirt when thermal strain is expected to be high, or very high.

(f) Wear a hat that is well vented +/- has a wide brim

(g) Apply sunscreen with >SFP 30

(h) Avoid stimulants including caffeine

(i) Persons should seek medical attention should they have a current respiratory or gastro viral infection which can impair normal temperature regulation
2.4 Medical provision

(a) Persons experienced in managing heat illness and other expected medical consideration should be involved in pre-event planning.

(b) Senior medical personnel should be consulted to mitigate risk where the risk of heat illness is considered high, or very high.

(c) Senior medical personnel should be available, with appropriate facilities, to cope comfortably with the expected number of casualties.

(d) All cases of life-threatening illness (for the absence of doubt this includes persons diagnosed with “heat stroke” should be discussed with the senior medical officer.

Disclaimer

This guide should be used as a guide only. Authors and their respective organisations are not liable for acts or omissions at specific golf tournaments out of their jurisdiction.

References


