Sustainable and accessible ways to keep cool

Mitigating climate change is vital, but inevitable rising temperatures mean that identifying sustainable cooling strategies is also important. Strategies at the individual scale that focus on cooling the person instead of the surrounding air can be effectively adopted, even in low-resource settings.

**Electric fans**
- Can provide effective cooling for young healthy adults up to 42°C (108°F) in 50% humidity
- Effectiveness is reduced with low humidity, and in older adults (>65 years), unless accompanied by self-dousing
- Increases dehydration, but can be offset by drinking an extra glass of water per hour

**Self-dousing**
- Can reduce heat strain and dehydration up to 47°C (117°F) if dousing is sufficient to keep the skin wet
- Can be used during power outages
- Low compatibility with high clothing coverage

**Foot immersion***
- Can reduce dehydration and thermal discomfort in hot and humid conditions
- Can be used during power outages
- Risk of slips and falls

**Wet clothing**
- Provides high evaporative heat loss without needing to sweat
- Can be used during power outages
- Clothing must be re-soaked roughly every 60 min

* Feet immersed above the ankles in 20°C (68°F) water

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**Evaporative coolers**
- Can cool air temperatures in dry conditions
- Minimal effect in high humidity
- Risks creating mosquito breeding sites without proper maintenance

**Misting fans**
- Lowers air temperatures in hot and dry conditions
- Must be used in well ventilated or outdoor areas otherwise humidity increases offset any benefit
- Risk of slips and falls

**Ice towels***
- Can reduce core temperature and cardiovascular strain in conditions up to 45°C (113°F)
- Requires access to ice
- Labour-intensive to prepare

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*** Crushed ice wrapped in a damp towel applied to the neck and chest

**Cold water ingestion**
- Can provide internal cooling
- Water should be ingested at a temperature that is most palatable (~10°C/~50°F) to ensure optimal hydration
- If person has already started sweating, not effective at lowering core temperature

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