



Running in the Heat & Humidity

When the Temperature Rises

- You sweat as your body temperature increases, and the evaporation of that sweat off your skin works to cool the body
- When your internal body temperature reaches 102 degrees, it can no longer effectively cool itself and sends blood to the skin to try to stay cool. This decreases the available blood to carry oxygen to your muscles, thus diminishing your ability to run fast

Relative Humidity

- Relative humidity is the amount of water in the air
- When it increases, the body struggles to stay cool since there is more water in the air, thus making evaporation of sweat from your skin more difficult

Common Summer Training Mistakes

Not adjusting training & goal paces

- Physiologically you will train slower in hot conditions
- It is impossible to avoid and has nothing to do with a lack of fitness
- Don't get frustrated, use perceived effort instead of set paces

Not enough recovery

- The body redirects resources used to help recovery to help keep you cool, even when you aren't running
- We typically get less sleep due to increased day length, increased family activities and early mornings to avoid the heat

Not hydrating enough

- A loss of 2% body weight leads to a 4-6% decrease in performance
- Replenish with electrolytes, not just water

Putting the Effect in Numbers

Dew Point (°F)	Performance Adjustment	Easy Running	Hard Running
Below 55°	0%	Unaffected	Unaffected
55° - 60°	1%	Unaffected	Slightly difficult
60° - 65°	2-3%	Slightly difficult	Difficult
65° - 70°	3-5%	Difficult	Very difficult
70°F - 75°	5-8%	Difficult	Very difficult
75° - 80°	12-15%	Very difficult	Very difficult
Above 80°	Just run	Very difficult	Very difficult