Name: _____ Date: _____

How a Body Learns to Handle Summer Heat

Circle group

The first hot day of summer can wear you out. A few weeks later, the same heat feels easier. The reason is acclimatization. This means the body slowly adjusts to a hot place. It takes about one to two weeks of regular time in the heat. That is why sports teams start with gentle practices when the hot season begins.

The body cools itself mostly by sweating. Sweat cools the skin when it evaporates, because it carries heat away. When the body gets used to heat, people sweat sooner and sweat more. Cooling starts earlier. The sweat glands also save salt, so sweat is less salty. The body loses fewer minerals it needs. Blood volume goes up a little. That helps the heart send blood to the muscles and the skin. The heart beats a bit slower during work.

These changes have limits. Humid air slows evaporation. Sweat drips off without cooling you as well. That is why a humid day feels worse. The changes also fade after a couple of weeks away from the heat.

Stay safe in the heat. Drink water often. Wear light, loose clothes. Rest in the shade. Start hard activity slowly. If you feel dizzy or sick, or you stop sweating while hot, rest in a cool place. Tell an adult right away. Heat illness is serious, but you can prevent it.

Questions

1. What is acclimatization?

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_____

2. How long does it take?

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_____

3. How does sweat cool the skin?

_____

_____

4. How does sweat change as the body gets used to heat?

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5. Why does a humid day feel worse?

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_____

6. Why do sports teams start with gentle practices in the hot season?

_____

_____

7. What should you do if you feel dizzy while hot?

_____

_____

Words to know

acclimatization: the body's gradual adjustment to a new climate
evaporates: changes from a liquid into a gas
humid: full of moisture, so the air feels damp

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How a Body Learns to Handle Summer Heat

Triangle group

The first hot day of summer can feel exhausting, yet a few weeks later the same temperature seems easier to bear. The reason is acclimatization, a set of changes by which the body gradually adjusts to a hot environment. It typically takes about one to two weeks of regular exposure, and it is one reason that sports teams hold gentle practices at the start of a hot season.

The body's main way to shed heat is sweating. Sweat cools the skin as it evaporates, carrying heat away with it. During acclimatization, people begin to sweat earlier and to sweat more, so the cooling starts sooner. The sweat glands also conserve salt, so the sweat becomes less salty and the body loses fewer of the minerals it needs. Blood volume rises a little, which helps the heart deliver blood to both the muscles and the skin, and the heart rate during work tends to be lower than before.

These changes help, but they have limits. Humid air slows evaporation, so sweat drips off without cooling as well, which is why a humid day feels worse. The adjustment also fades after a couple of weeks away from the heat.

Safe habits remain important. Drink water regularly, wear light and loose clothes, take breaks in the shade, and ease into hard activity rather than starting at full effort. If someone feels dizzy or sick, or stops sweating while hot, that person should rest in a cool place and tell an adult right away, because heat illness is serious but preventable.

Questions

1. What is acclimatization?

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_____

2. How long does it typically take?

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_____

3. How does sweat cool the skin?

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4. How does sweat change during acclimatization?

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5. Why does a humid day feel worse than a dry day of the same temperature?

_____

_____

6. Why do sports teams hold gentle practices at the start of a hot season?

_____

_____

7. What should someone do if they feel dizzy while hot?

_____

_____

Words to know

acclimatization: the body's gradual adjustment to a new climate
evaporates: changes from a liquid into a gas
humid: full of moisture, so the air feels damp
conserve: to save and use carefully
exposure: time spent in a certain kind of weather or place

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How a Body Learns to Handle Summer Heat

Square group

The first sweltering day of summer can feel utterly draining, yet a few weeks later the very same temperature seems far easier to tolerate. The reason is acclimatization, a collection of changes through which the body gradually adapts to a hot environment. The process typically requires about one to two weeks of regular exposure, and it is one reason that sports teams schedule gentle practices at the outset of a hot season.

The body's principal method of shedding heat is sweating. Sweat cools the skin as it evaporates, carrying heat away along with it. During acclimatization, people begin to sweat earlier and more abundantly, so the cooling begins sooner. The sweat glands also conserve salt, which makes the sweat less salty and means the body loses fewer of the minerals it needs. Blood volume rises slightly, which helps the heart deliver blood to both the muscles and the skin, and the heart rate during exertion tends to be lower than it was before.

These adjustments are helpful, but they have boundaries. Humid air slows evaporation, so sweat drips off without cooling the body nearly as well, which is why a humid day feels so much worse. The adaptation also fades after a couple of weeks away from the heat.

Sensible habits remain essential. Drink water regularly, wear light and loose clothing, take breaks in the shade, and ease into strenuous activity rather than starting at full effort. If someone feels dizzy or sick, or stops sweating while hot, that person should rest in a cool place and tell an adult immediately, because heat illness is serious yet preventable.

Questions

1. What is acclimatization?

_____

_____

2. How long does the process typically take?

_____

_____

3. How does sweat cool the skin?

_____

_____

4. How does sweat change during acclimatization?

_____

_____

5. Why does a humid day feel worse than a dry one of the same temperature?

_____

_____

6. Why do sports teams schedule gentle practices at the start of a hot season?

_____

_____

7. What should someone do if they feel dizzy while hot?

_____

_____

Words to know

acclimatization: the body's gradual adjustment to a new climate
evaporates: changes from a liquid into a gas
humid: full of moisture, so the air feels damp
conserve: to save and use carefully
exposure: time spent in a certain kind of weather or place

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: How a Body Learns to Handle Summer Heat

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: How a Body Learns to Handle Summer Heat

Easier · 227 words · Flesch-Kincaid grade 3.4

1. The body slowly adjusting to a hot place.
2. About one to two weeks of regular time in the heat.
3. It evaporates and carries heat away.
4. People sweat sooner and more, and the sweat is less salty.
5. Humid air slows evaporation, so sweat cools you less well.
6. It gives players' bodies time to get used to the heat.
7. Rest in a cool place and tell an adult right away.

Triangle: How a Body Learns to Handle Summer Heat

This passage · 257 words · Flesch-Kincaid grade 8.8

1. A set of changes by which the body adjusts to a hot environment.
2. About one to two weeks of regular exposure.
3. It evaporates and carries heat away with it.
4. People sweat earlier and more, and the sweat becomes less salty.
5. Humid air slows evaporation, so sweat cools the body less well.
6. They give players' bodies time to adjust to the heat.
7. Rest in a cool place and tell an adult right away.

Square: How a Body Learns to Handle Summer Heat

Harder · 268 words · Flesch-Kincaid grade 10.6

1. A collection of changes through which the body adapts to a hot environment.
2. About one to two weeks of regular exposure.
3. It evaporates and carries heat away along with it.
4. People sweat earlier and more abundantly, and the sweat becomes less salty.
5. Humid air slows evaporation, so sweat cools the body less effectively.
6. They allow players' bodies time to adapt to the heat.
7. Rest in a cool place and tell an adult immediately.