Science 14

Unit C: Matter and energy in living systems

Homeostasis and medical technology

Salt and blood pressure

- A salty meal is followed by a rise in blood pressure in many people.
- A sugary meal is followed by insulin release that brings blood sugar back down.

Homeostasis and two tools

- Homeostasis is the body keeping an internal balance after a meal or a change.
- A stethoscope helps someone listen. A pacemaker helps the heart keep a useful rhythm.

Key terms

homeostasis

The body's maintenance of internal balance, with the digestive and circulatory systems adjusting to each other.

insulin

A hormone that helps lower blood sugar after it rises.

pacemaker

A device that helps the heart keep a useful rhythm when the heart's own signal needs support.

Tools that see or support the balance

- A stethoscope lets a listener hear the heart. An endoscope shows the inside of the digestive tract.
- Dialysis filters the blood when kidneys need support. A pacemaker supports heart rhythm.



Juice and insulin

- Blood sugar rises after the juice.
- Insulin helps move sugar out of the blood toward the earlier level.

A normal swing

- Blood sugar rises after a meal and then falls.
- That swing is part of ordinary balance.

Disorders and medical devices

- Absorbing salt can raise blood pressure.
- A pacemaker can support heart rhythm when the heart needs that help.

A disorder and its system

- Name the body system, what went out of balance, and the evidence you used.
- Take personal health worries to a trusted adult or a clinician.

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