Your notes

GCSE PE: revision notes

Diet, nutrition and energy balance

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A balanced diet

- **Carbohydrates**: the main energy source, especially for high-intensity exercise. Found in pasta, rice, bread and potatoes.
- Fats: energy for low-intensity, long-duration exercise, and insulation. Found in butter, oil and nuts.
- **Protein**: growth and repair of muscle. Found in meat, fish, eggs, beans and pulses.
- Vitamins and minerals: help the body work properly, such as calcium for bones and iron for red blood cells.
- **Fibre**: helps digestion. Water: keeps the body hydrated.

Energy balance

- The average adult man needs about 2,500 kcal a day and the average adult woman about 2,000 kcal a day.
- Energy needs depend on age, gender, height and how active a person is.
- If energy in (food) is more than energy out (activity), weight goes up; if it is less, weight goes down.

Diet for sport

- **Carbohydrate loading** before an endurance event fills glycogen stores.
- **Protein** helps muscles repair and grow, so power athletes may eat more of it.
- Timing matters: eat a light meal a few hours before exercise, and refuel afterwards.

Hydration

- Water balance means drinking enough to replace fluid lost in sweat and urine.

- **Dehydration** thickens the blood, raises heart rate, causes overheating, slows reaction time, and can cause muscle cramps and nausea.
- Drink before, during and after exercise, especially in hot weather.

Key terms

Balanced diet	Eating the right amounts of each nutrient for your needs.
Carbohydrate	A nutrient that is the main source of energy.
Protein	A nutrient for the growth and repair of muscles.
Fibre	A nutrient that helps digestion.
Carbohydrate loading	Eating extra carbohydrates before an endurance event.
Dehydration	Too little water in the body.
Energy balance	When energy taken in equals energy used.
Hydration	Having enough water in the body.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is the main source of energy for high-intensity exercise?
2. What is protein mainly used for?
3. How many calories a day does the average adult man need?
4. What happens to weight if energy in is more than energy out?
5. Why might a marathon runner use carbohydrate loading?
6. What does fibre do?
7. Which is an effect of dehydration?
8. What does dehydration do to the blood?

Answers

1. Carbohydrates
2. Growth and repair of muscle
3. About 2,500 kcal
4. It goes up
5. To fill glycogen stores before the race
6. Helps digestion
7. A slower reaction time
8. Makes it thicker

What to do next

Practise 11 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

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