GCSE Physical Education – Diet, Weight, Nutrition & Hydration

A balance diet – eating the right foods in the correct proportions. Insufficient macro and micronutrients can cause health issues *i.e. anaemia, rickets and scurvy.*

7 components of a balanced diet:

Macronutrients

- Carbohydrates – Main energy source. i.e. pasta & potatoes
- Fats – Secondary energy source & provides insulation. i.e. butter
- Proteins – Help growth and repair of muscles. i.e. eggs, meat & fish

Micronutrients

- Minerals – Maintains a healthy bodily functioning. i.e. iron and calcium
- Vitamins - Maintains a healthy immune system. i.e. vitamin C/D

Other components

- Fibre – Aids digestion of food in the gut. *i.e. cereals & nuts*
- Water – Maintains hydration of an athlete.

Hydration and physical activity

Water is necessary for:

- Transportation of nutrients
- Removes waste products through urine
- Regulates body temperature

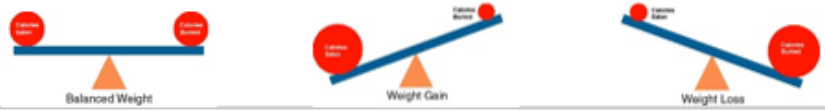
A lack of water can cause **dehydration**. Symptoms are tiredness, lack of concentration and headaches.

After the event - An athlete will continue to drink fluids to replace the water and carbohydrate levels that are depleted.

Organising meals around exercise – it is recommended to eating 2-3 hours before exercise. This is due to redistribution of blood during exercise (Blood Shunting)

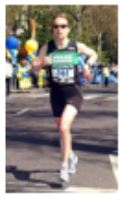
When exercising, the distribution of blood around the body changes according to the demands. *i.e. away from digestive system and to working muscles.*

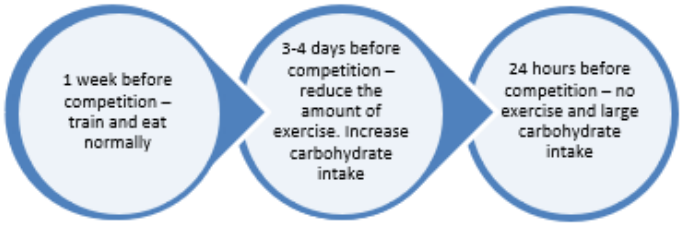
Energy Balance – this relates to intake and energy expenditure.



Dietary manipulation to optimise performance

Carbohydrate Loading – a strategy used by endurance athletes to increase carbohydrate stores





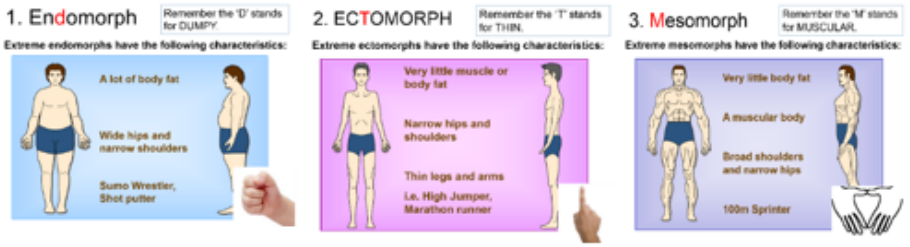
Protein intake – the intake and timing of this consumption is vital to maximise the repair of muscle tissues after training. Protein should be take straight away to increase muscle repair.
Used by **sprinters, shot putters & power events.**

Optimum Weight – this is the ideal weight someone should be. This will depend on:

- Height
- Gender
- Bone structure
- Muscle girth (size)

Optimum weight varies depending on the requirements of different sports/positions.
i.e. rugby forwards & backs

Somatotypes (AQA only)



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GCSE Physical Education

Diet, Weight, Nutrition & Water

GCSE Physical Education – Health, Fitness and Well-Being

Lifestyle choices – the decisions we make about how we live and behave that impact on health.

Diet

Eating healthy	Eating unhealthy
1. Boosts energy levels 2. Reduces the risk of developing serious health conditions 3. Help lose weight	1. Leads to deficiencies 2. Increases weight and % body fat 3. Causes depression with poor body shape

Activity levels

Active lifestyle	Inactive lifestyle
1. Boosts self esteem 2. Reduces stress and anxiety 3. Improves fitness levels	1. Increases risk of disease 2. Decreases muscle mass, strength and energy levels

Work/rest/sleep balance

Good balance	Poor balance
1. Improves mood 2. Increases productivity at work 3. Contributes to quality of sleep	1. Increases the risk of depression 2. Leads to weight gain 3. Increased blood pressure

Well being – a combination of physical, emotional and social health.

Positives effects of training/exercise on:

Physical health

- Stronger bones (increased bone density)
- Lower cholesterol / reduced obesity
- Increase/development of components of fitness
- Increase life expectancy

Emotional health

- To increase self esteem/confidence – increased endorphins released
- Reduced risk of age-related diseases - dementia
- Relieve stress and tension
- Fun/enjoyment / reduced boredom

Social health

- To develop teamwork skill
- To meet new people/friends
- Develop communication skills
- Develop leadership skills

Social benefits may vary depending on age group:

1. Elderly
2. Children

Negative effects of training on:

- Physical health – overexertion leading to heart failure / overuse injuries
- Emotional health – training can lead to injury and cause depression
- Social health – training long hours means less time spent with family.

Recreational drugs – these are taken for pleasure and are legal to those over a certain age.

Smoking

Causes breathlessness and reduces the oxygen-carrying capacity. This affect aerobic ability for endurance events. Smoking (nicotine) increases the risk of lung cancer, bronchitis, pneumonia & emphysema.

Alcohol - contains chemicals which act on the brain affect judgement.

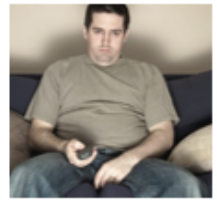
Balance, co-ordination and reactions are affected

Diuretic – increased water levels in urine and cause dehydration

Reduction of glycogen levels and slower lactic acid removal

Liver problems

Sedentary lifestyle – a lifestyle with no or irregular physical activity. This includes sitting, reading, watching television & playing video games.



Health risks associated are:

- Heart disease
- Type 2 diabetes
- Obesity
- Osteoporosis
- Depression

Impact of a sedentary lifestyle on weight

Overweight – weighing more than the expected weight for height and gender / **Overfat** – high percentage of body fat

Obese – weighing significantly more than expected.

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GCSE Physical Education

Health & Sedentary Lifestyle

GCSE Physical Education – Participation rates, Commercialisation & Deviancy

Participation rates – The number of people taking part in physical activity.

Age – The reason why different age groups participate can vary based on **access, cost, time available** and the **nature of the activity**.

Gender – Men and women can participate for different reasons including image, cost, time and society. Increased media coverage has helped remove many stereotypes.

Ethnicity – The number of **ethnic groups** (black, white & other minorities) playing sport are on the rise. Reasons for the difference include stereotypes, cost and cultural influences.

Disability – This can be a physical or mental impairment. Activities and rules are often adapted *i.e. Wheelchair tennis.* Other barriers include availability, cost and access.

Staying active from childhood into adulthood can improve quality of life.

Socio-economic group – This is determined by profession and available income. Factors include cost, availability and time. *i.e. golf is far more expensive to participate than athletics.*

Early involvement in sport is key to lifelong participation

Data – facts and statistics gathered to highlight information. Shown in table or graph format.

Trends - a general direction in which something is developing or changing.

Deviancy

Sportsmanship – the qualities of fairness and following the rules. *i.e. shaking hands after a match*

Gamesmanship – Bending the rules to gain an advantage *i.e. fainting injury to waste time*

Deviant behaviour – Behaviour that goes against the norms of society or the rules of a sport. This type of behaviour causes **negative role models**. *i.e. drug taking or biting a player*

Consequences:

1. Punishment – red card/sin bin/bans
2. Loss of sponsors / contracts with clubs
3. Damaging own reputation or club/country

Commercialisation - Sport, media and commercialisation are closely linked in a what is known as a 'GOLDEN TRIANGLE'

Sponsor

Advantages	Disadvantages
• Raise awareness of brand leading to increased sales • Displays goodwill	• Poor behaviour from athletes/clubs causes negative media attention. • Smaller sponsors might struggle to compete with larger more global brands. • Some sponsors are not suitable to be promoted within sport. *i.e. tobacco*

Player/Performers

Advantages	Disadvantages
• Allows athletes to earn income as a full time job. • Can lead to additional roles post playing career within the sport.	• Encourages deviant behaviour due to the pressure of success. • Generally, favours male over female and able bodied over disabled. • Sponsorship might be short term.

Sport

Advantages	Disadvantages
• Raises the profile of the sport due to increased exposure. • Changes to sport format/rules to make audience friendly.	• Tends to only support the popular sports. • The influence of TV has caused an increase in adverts and changed TV timings (traditions lost)

Spectator

Advantages	Disadvantages
• Offers a wider choice of sports available to watch. • Viewing experience has ben enhanced due to technology	• Encourages spectating not participating. • Can become very expensive for fans/spectators. • Affects view experience - increased TV breaks.

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GCSE Physical Education

Participation, Commercialisation & Deviance

GCSE Physical Education – Sports Psychology

Classification of skill

Skills are specific tasks that can be learnt and practiced. *i.e. Golf swing / Lay up / Tennis volley*

Continuum = sliding scale of extremes at each end

Environmental influence – Open/Closed Continuum

OPEN

CLOSED

Difficulty - Complex/Basic Continuum

COMPLEX

BASIC/SIMPLE

Organisation Level - Low/High Continuum

LOW ORGANISED

HIGH ORGANISED

Types of Practices

Massed practice: When no rest intervals are given.

Distributed practice: When a rest interval is given to allow recovery, feedback & coaching.

Fixed practice: Uses repetition of the same activity to develop consistency in performance.

Varied/Variable practice: Involves or performing a skill in different situations where conditions are changeable.

Guidance

Visual guidance: Learners are shown the whole action by the coach. *i.e. demonstration/use of video playback.*

Verbal guidance: Learners listen to information given to a performer often using associated terminology. *i.e. instructions told to a team.*

Manual guidance: Coaches will physically move a performer and support them in performing a skill. *i.e. Trampolining sommersault support.*

Mechanical guidance: Learners use equipment to help support the practicing of a skill. *i.e. floats during swimming stroke development.*

Feedback

Vital part of information processing which provides confidence, motivation and improves performance.

Intrinsic feedback: This comes from within the performer. Kinaesthetic senses provide feelings from muscles/joints about the action.

Extrinsic feedback: This comes from results and match analysis.

1.Knowledge of results – the outcome
2.Knowledge of performance

Concurrent feedback: Information provided to the athlete during the performance.

Terminal feedback: Information provided to the athlete before or after the performance.

Mental Preparation for Performance

Mental rehearsal/Imagery involves the athlete imagining themselves in an environment performing a specific activity using all of their senses.

This can be used to:

- Familiarise the athlete with a competition site or a complex play pattern or routine.
- Motivate the athlete by recalling images of their goals or of success in a past competition.
- Perfect skills or skill sequences the athlete is learning or refining.
- Reduce negative thoughts by focusing on positive outcomes.

SMART Targets

Goal setting motivates performers

- Short Term goals
- Long Term goals
- Outcome goals
- Performance goals

Specific	Measureable	Achievable	Realistic	Time-Bound
Targets must be concise. ***"To take a 0.5 second off my time personal best time"***	Must be measured and compared. ***"I will time my runs every training session for the next five weeks of training"***	Target must be challenging but yet reachable. ***"My coach and I devised the training programme around improving leg power for my start"***	Matched to the performers skill level. ***"We agreed that a 0.5 seconds off my personal best is realistic for my current ability and status"***	Set for a particular time to be completed. ***"We agreed to do the training programme four times per week for the next five weeks"***

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Sports Psychology