

Health, Fitness and Exercise

Revision Guide

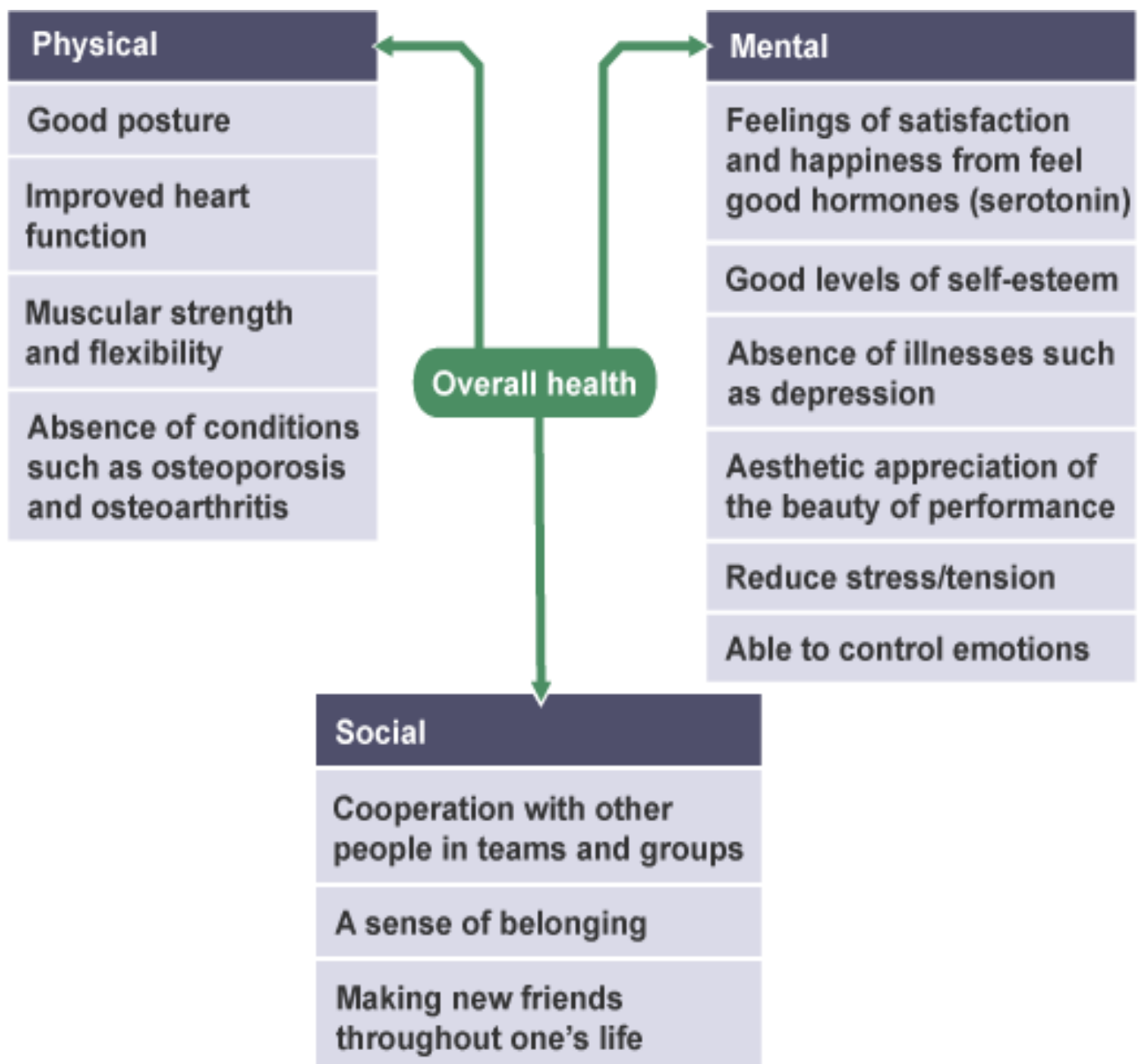
St Mary's Catholic Academy

GCSE Physical Education



Health

Health can be defined as '**complete physical, mental and social wellbeing** and not only the **absence of illness or infirmity**'. This is an interesting definition as people tend to feel they are healthy simply when they do not feel ill. This definition clearly describes that health is much more and involves **feelings of happiness, social interaction and energy**



Exercise and Fitness

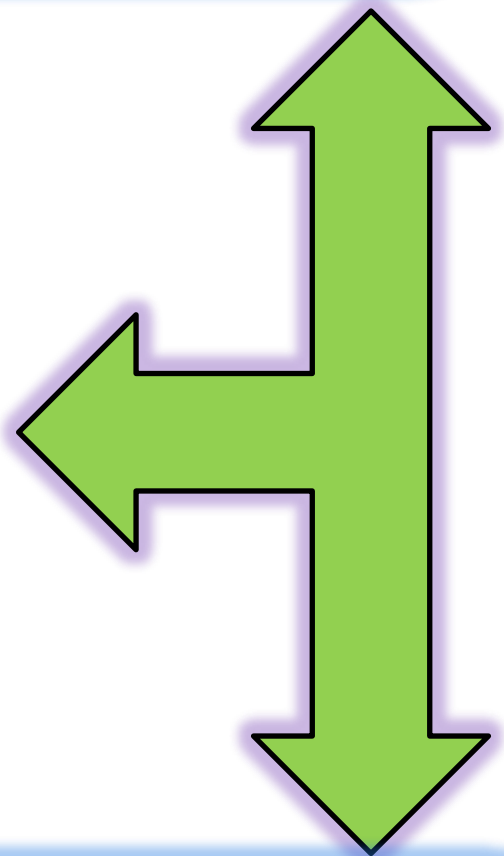
Fitness can be defined as '**the ability to meet the demands of the environment**'.

There are an increasing number of people who work in **jobs** which **don't require much physical activity**. These jobs are described as **non-physical** or **sedentary** and mean the **level of fitness** required to do them is **low**.

This can lead to more people having **low levels of fitness and decreasing health levels** in society.

Exercise can be defined as '**a form of physical exercise done to improve health or fitness or both**'. It is recommended that adults and children follow different activity routines in order to maintain good health and fitness

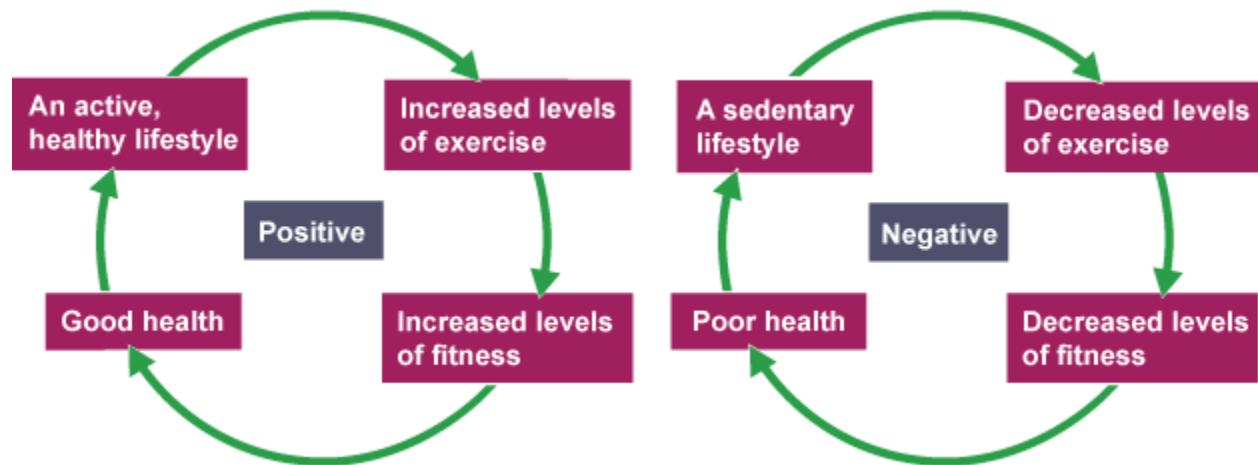
Adults - five sessions of thirty minutes activity per week. The activity should be physical enough to cause the **adult to breathe more deeply** and to begin to sweat.



Children and young people - seven sessions of sixty minutes per week. At least two of these sessions should be of high intensity exercise such as running, jumping or cardiovascular based sports. The seven hours may be spread out over the course of a week.

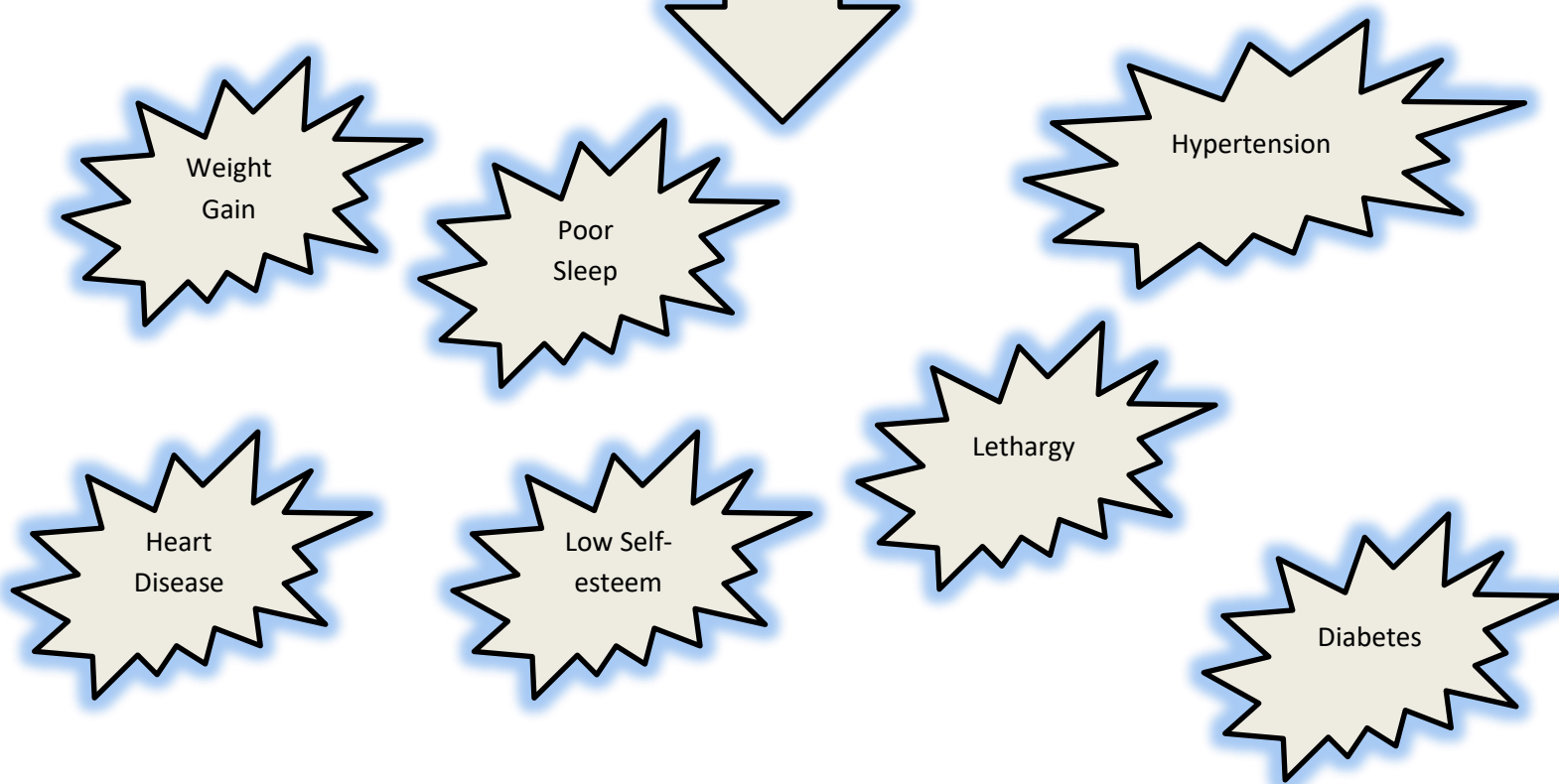


Relationships health, fitness & exercise



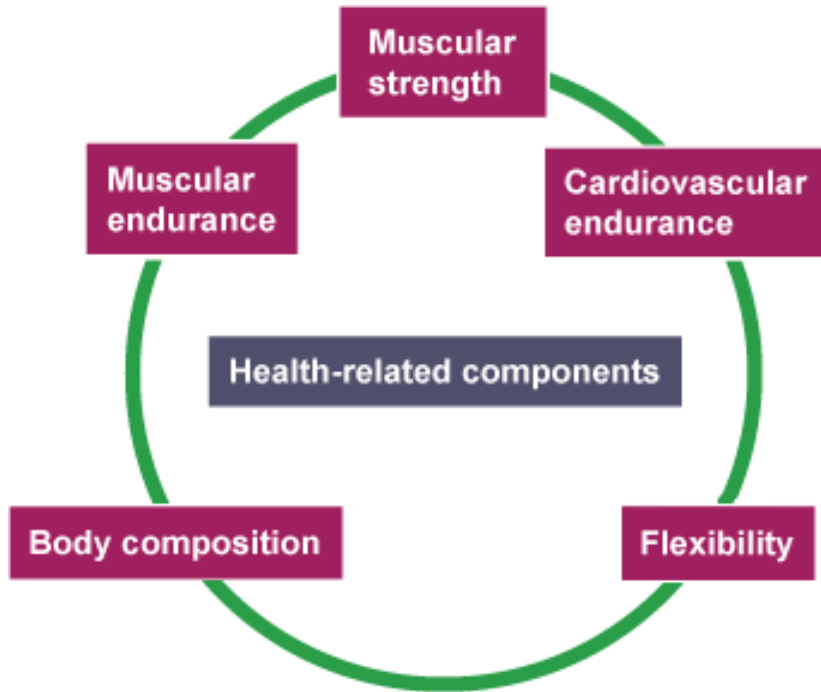
The consequences of a sedentary lifestyle

If a person does not take part in regular physical activity, exercise or sport then they are at risk of a number of illnesses and negative effects such as:



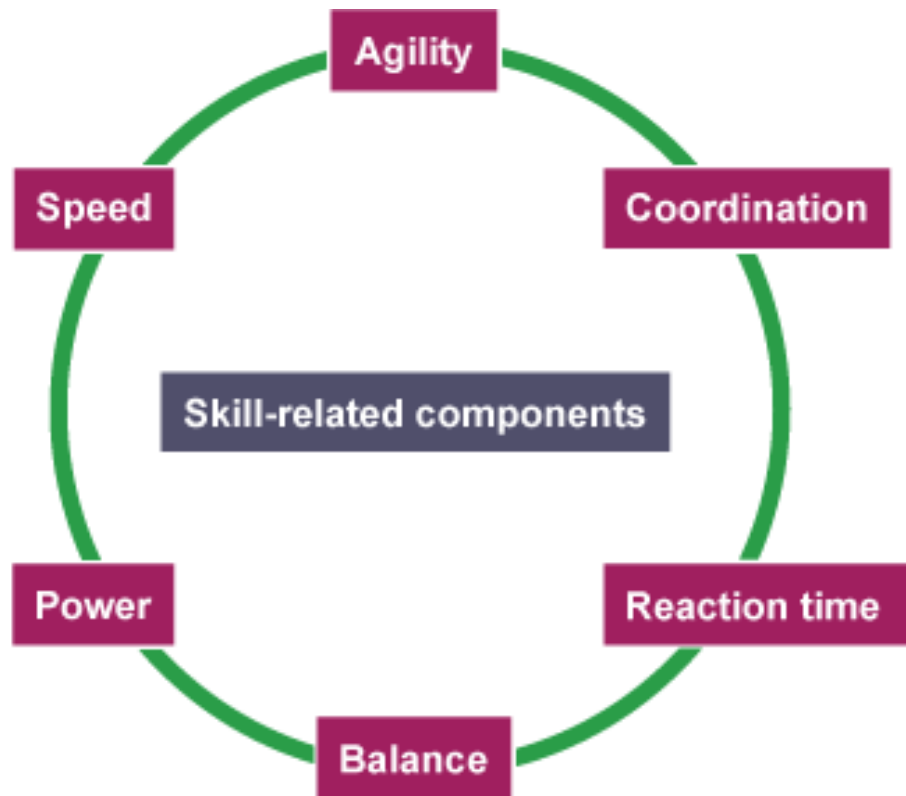
Components of fitness

(HEALTH)



	Definition	Example
Body Composition	The percentage of body weight which is fat, muscle and bone	The gymnast has a lean body composition to allow them to propel themselves through the air when performing on the asymmetrical bars
Cardiovascular Endurance	The ability of the heart, lungs and blood to transport oxygen	Completing a half marathon with consistent split times across all parts of the run
Flexibility	The range of motion (ROM) at a joint	A gymnast training to increase hip mobility to improve the quality of their split leap on the beam
Muscular Endurance	The ability to use voluntary muscles repeatedly without tiring	A rower repeatedly pulling their oar against the water to propel the boat towards the line
Muscular Strength	The amount of force a muscle can exert against a resistance	Pushing with all one's force in a rugby scrum against the resistance of the opposition pack

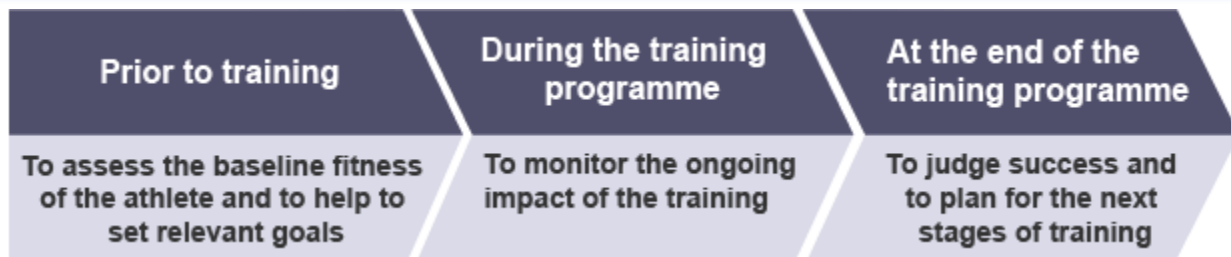
Components of fitness (SKILL)



	Definition	Example
Agility	The ability to change the position of the body quickly and control the movement.	A badminton player moving around the court from back to front and side to side at high speed and efficiency
Balance	The ability to maintain the body's center of mass above the base of support	A sprinter holds a perfectly still sprint start position and is ready to go into action as soon as the gun sounds
Coordination	The ability to use two or more body parts together	A trampolinist timing their arm and leg movements to perform the perfect tuck somersault
Power	The ability to perform strength performances quickly	A javelin thrower applies great force to the spear while moving their arm rapidly forward
Reaction Time	The time taken to respond to a stimulus	A boxer perceives a punch from their left and rapidly moves their head to avoid being struck
Speed	The ability to put body parts into motion quickly	A tennis player moving forward from the baseline quickly to reach a drop shot close to the net

Fitness Tests for Different Components of Fitness

Fitness testing is a **central and essential feature of all fitness training** and will be used **before** training begins, **during** the training programme and again at the **end** of the training programme.

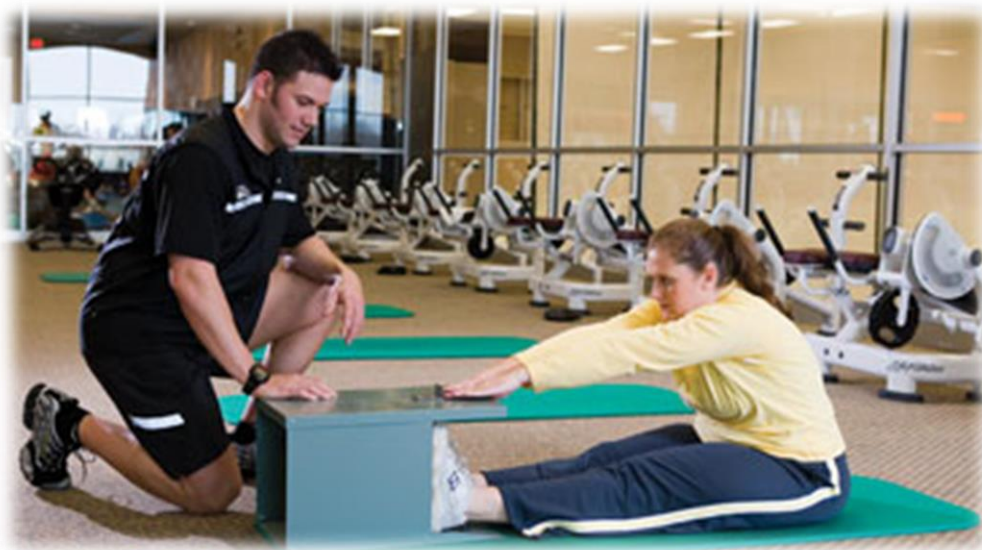


Testing health-related components of fitness

Type Of Health Related Fitness	Name Of Test
Strength	Hand grip dynamometer
Maximal Strength	One rep max test
Cardiovascular Endurance	Multi-stage fitness test
Flexibility	Sit and reach test
Speed	30 metre sprint test
Muscular Endurance	60 second press-up test
Muscular Endurance	60 second sit-up bleep test

Testing skill-related components of fitness

Type Of Skill Related Fitness	Name Of Test
Agility	Illinois agility test
Coordination	Alternate hand wall toss test
Reaction Time	Ruler drop test
Balance	Standing stork test
Power	Vertical jump test



Limitations of Fitness Testing

Some fitness tests are too specific such as the handgrip dynamometer test

Some tests do not replicate real sporting movements or challenges and are therefore too generic

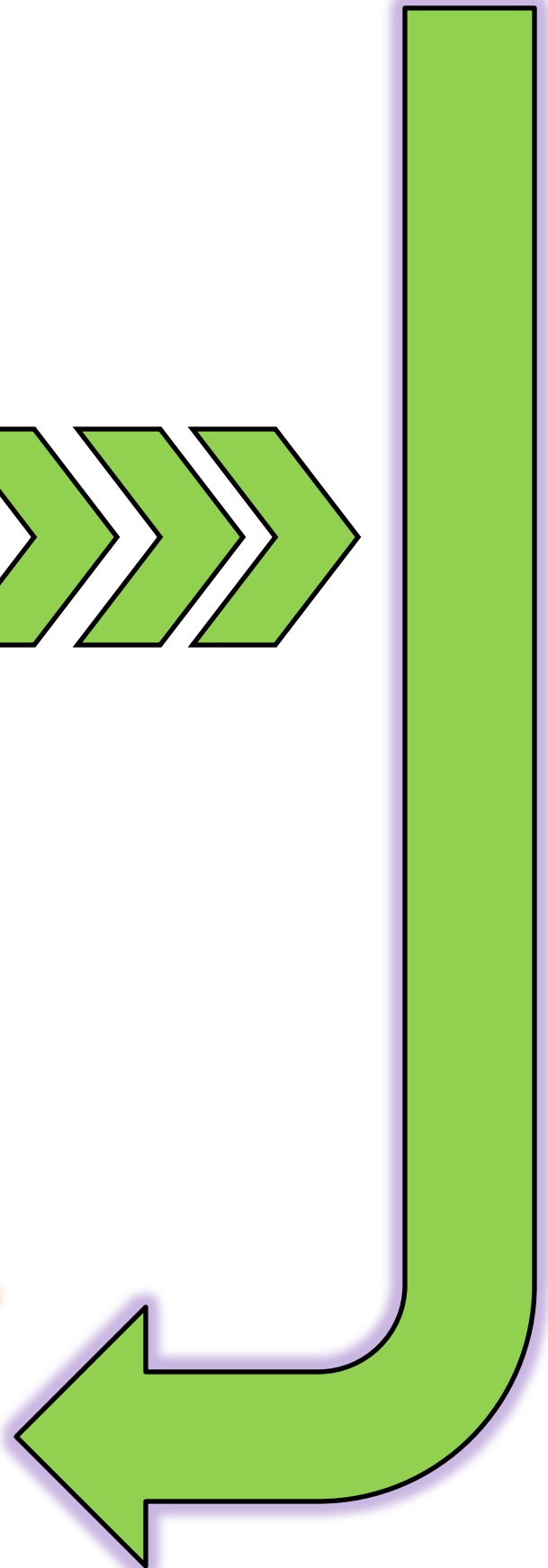
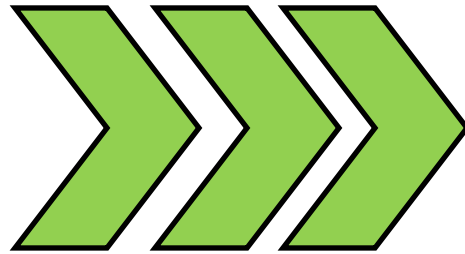
Fitness tests do not replicate the competitive environment of sport

Some fitness tests do not use a direct measurement but instead use a prediction

Many maximal tests such as the 60 second press up test require a person to be fully motivated or they drop out before achieving their true score

Fitness tests can be carried out using the wrong protocols and therefore produce invalid results

Do these limitations mean the tests are worthwhile?



Quick Questions

Which form of health includes cooperation and sense of belonging?

- 1) Physical
- 2) Mental
- 3) Social

What term can be used to describe jobs that involve a lot of sitting down?

- 1) Active
- 2) Lazy
- 3) Sedentary

What are the recommended weekly activity levels for children?

- 1) Five lots of 30 minutes
- 2) Seven lots of 30 minutes
- 3) Seven lots of 60 minutes

Which of the following is a possible effect of a sedentary lifestyle?

- 1) Increased self esteem
- 2) Hypertension
- 3) Good posture

Which type of fitness tests might lack validity as a result of performers experiencing motivational issues?

- 1) Maximal tests
- 2) Reaction tests
- 3) Flexibility tests

Which of the following components of fitness is most important for an endurance runner?

- 1) Flexibility
- 2) Speed
- 3) Cardiovascular endurance

What is being defined here?: 'The ability to maintain the body's centre of mass above the base of support.'

- 1) Coordination
- 2) Power
- 3) Balance

Which of these tests is most relevant for measuring muscular endurance?

- 1) Sit and reach test
- 2) 60 second press up test
- 3) 12 minute cooper run

What is being defined here?: 'The test should produce similar results each time the test is taken.'

- 1) Reliability
- 2) Validity
- 3) Performance

At what point in a training programme would fitness tests be used to measure baseline fitness?

- 1) Prior to the training programme
- 2) During the training programme
- 3) At the end of the programme

Answers

- 1) Social
- 2) Sedentary
- 3) Seven lots of 60 minutes
- 4) Hypertension
- 5) Maximal tests
- 6) Cardiovascular system
- 7) Balance
- 8) 30 second press up test
- 9) Reliability
- 10) Prior to the training programme

