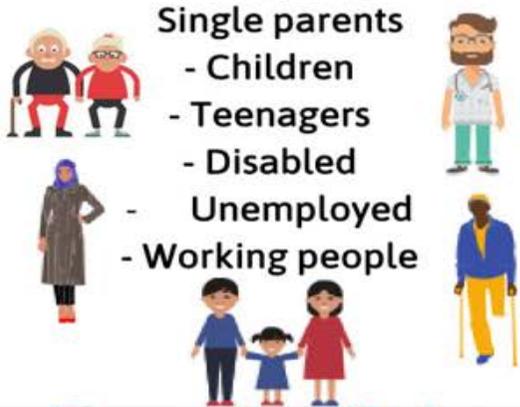


Understand the Issues which Affect Participation in Sport

Groups

- Ethnic minorities
- Retired people
- Families with young children



Deeper Questioning ...

- ❖ Recall the 8 user groups
- ❖ What would be the main issue for these user groups to participate in sport?

Barriers



Lack of role models

Lack of access

Lack of provision.

Lack of time

Lack of disposable income.

Lack of awareness

Stereotyping

Deeper Questioning ...

- ❖ What impact could these barriers have on participation?
- ❖ What user group could this barrier apply to?

Solutions



Success for both teams and individuals:

As sporting success is achieved, people are generally inspired to take part.

Environment/climate:

The weather in the UK can also pose a barrier to those who do not like getting cold or wet.

sky **Spectatorship/media coverage:** **BT Sport**

The amount of media coverage given to a sport can affect its popularity.

Provision:

People can not participate if there is little or no provision available

Acceptability:

Culture can dictate what is deemed to be an acceptable or unacceptable sport



Emerging sports



Emerging sports



Diet, activity and health

- There are health issues related to dietary excess or deficiency.
- It is important to include a variety of different activity in everyday living, supporting physical, social and mental wellbeing.



A balanced diet

A balanced diet is based on the Eatwell Guide. An unbalanced diet can lead to dietary related diseases.



Malnutrition

Having intakes of energy and/or nutrients below or in excess of needs for long periods of time can affect health.

The risk of **malnutrition** is increased by:

- increased requirements for some nutrients;
- restricted range of foods;
- reduction in available income;
- very low income;
- medical conditions;
- psychological conditions.

Diet and health

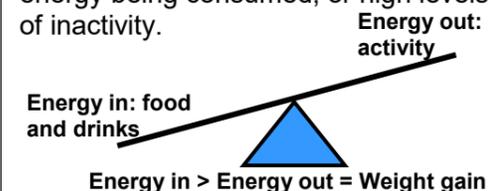
There is a link between a poor diet, and the risk of developing some diseases.

This includes the risk of:

- cancer;
- coronary heart disease (CHD);
- bone health;
- anaemia.

Over nutrition

The most common over nutrition problem is obesity caused by too much energy being consumed, or high levels of inactivity.



Energy in > Energy out = Weight gain

Body Mass Index

BMI measures your height and weight to work out if your weight is healthy.

$$\text{BMI} = \frac{\text{weight (kg)}}{(\text{height in m})^2}$$

Recommended BMI range (adults)

Less than 18.5	Underweight
18.5 to 25	Desirable
25-30	Overweight
30-35	Obese (Class I)
35-40	Obese (Class II)
Over 40	Morbidly obese

Under nutrition

Worldwide, Kwashiorkor and marasmus are two common diseases caused by a lack of protein and energy. Fat soluble vitamins (A, D, E and K) are stored in the body so it takes time for deficiency diseases to develop.

Activity recommendations

Pre-schoolers (3 to 4 years): 180 minutes (3 hours) spread throughout the day, including at least 60 minutes of moderate-to-vigorous intensity physical activity

Children and young people (5-18 years): at least 60 minutes of physical activity every day and engage in a variety of types and intensities of physical activity across the week.

Adults (19-64 years): at least 150 minutes each week (moderate intensity), or have 75 minutes of vigorous activity a week and do muscle strengthening activities on two days or more each week.

Moderate activity



Vigorous activity



Muscle strengthening activities



Inactivity

It is also important that the amount of time being sedentary is reduced. Over time, sedentary behaviour can lead to weight gain and obesity, which can increase the risk of developing chronic diseases in adulthood.

1 in 4 women and 1 in 5 men are classified as inactive (<30 mins per week).

Obesity

People who are obese are more likely to suffer from CHD, type 2 diabetes, gall stones, arthritis, high blood pressure and some types of cancers, i.e. colon, breast, kidney and stomach.

Key terms

Deficiency diseases: Adverse bodily conditions caused by a lack of a nutrient.

Iron deficiency anaemia: A condition caused by insufficient iron in the body. Common symptoms include tiredness and lethargy.

Kwashiorkor: A severe type of protein-energy malnutrition.

Malnutrition: When the diet does not contain the right amount of nutrients.

Marasmus: A severe type of energy malnutrition in all forms, including protein.

Moderate activity: Will raise your heart rate, and make you breathe faster and feel warmer.

Obesity: Extreme overweight. Obese adults have a BMI of 30 or above.

Sedentary behaviour: Requires little energy expenditure and includes sitting or lying down to watch television, use the computer, read, work or study, and sitting when travelling to school or work.

Vigorous activity: Makes you breathe hard and fast.

Diet and cancer

The World Cancer Research Fund has released nine cancer prevention recommendations.

- Be a healthy weight.
- Move more.
- Avoid high-calorie foods and drinks.
- Enjoy more grains, veg, fruit and barley.
- Limit intake of red meat and avoid processed meat.
- Don't drink alcohol.
- Eat less salt.
- Don't rely on supplements.
- Breastfeed your baby.

Diet and CHD

It is believed that 80% of CHD and strokes could be prevented by changes to lifestyle factors, such as diet, physical activity and smoking.

Changes to the diet to reduce the risk of CHD include:

- increasing oily fish intake;
- reducing salt intake;
- increasing fruit and vegetables;
- decreasing alcohol consumption.

Bone health

Calcium is important for strong bones. Vitamin D is needed for calcium to be absorbed from food.

Anaemia

Iron is vital for making red blood cells. Iron from the diet forms haemoglobin, which carries oxygen in the blood. Anaemia develops if the body's stores of iron are too low.

Task

Create a poster that contains information on what constitutes a healthy diet and some top tips on how to get active. Include information on how getting active and having a healthy diet can reduce the risk of some health issues and some other tips on how to reduce the risk of these.

For more information, go to: <https://bit.ly/32BF4FJ>

The Eatwell Guide

- When choosing food and drinks, current healthy eating guidelines should be followed.



Fruit and vegetables

- This group should make up just over a third of the food eaten each day.
- Aim to eat at least five portions of a variety each day.
- Choose from fresh, frozen, canned, dried or juiced.
- A portion is around 80g (3 heaped tbs).
- 30g of dried fruit or 150ml glass of fruit juice or smoothie count as a max of 1 portion each day.

Potatoes, bread, rice, pasta or other starchy carbohydrates

- Base meals around starchy carbohydrate food.
- This group should make up just over a third of the diet.
- Choose higher-fibre, wholegrain varieties.

Dairy and alternatives

- Good sources of protein and vitamins.
- An important source of calcium, which helps to keep bones strong.
- Should go for lower fat and lower sugar products where possible.

To find out more, go to:
<https://bit.ly/2QzUMfe>

The Eatwell Guide

- Comprises 5 main food groups.
- Is suitable for most people over 2 years of age.
- Shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.
- Shows proportions representative of food eaten over a day or more.

Beans, pulses, fish, eggs, meat and other protein

- Sources of protein, vitamins and minerals.
- Recommendations include to aim for at least two portions of fish a week, one oily, and;
- People who eat more than 90g/day of red or processed meat, should cut down to no more than 70g/day.

Oil and spreads

- Unsaturated fats are healthier fats that are usually from plant sources and in liquid form as oil, e.g. olive oil.
- Generally, people are eating too much saturated fat and need to reduce consumption.

Foods high fat, salt and sugar

- Includes products such as chocolate, cakes, biscuits, full-sugar soft drinks, butter and ice cream.
- Are high in fat, sugar and energy and are not needed in the diet.
- If included, should be had infrequently and in small amounts.

8 tips for healthier eating

These eight practical tips cover the basics of healthy eating, and can help you make healthier choices.

- Base your meals on starchy carbohydrates.
- Eat lots of fruit and veg.
- Eat more fish – including a portion of oily fish.
- Cut down on saturated fat and sugar.
- Eat less salt (max. 6g a day for adults).
- Get active and be a healthy weight.
- Don't get thirsty.
- Don't skip breakfast.

Hydration

- Aim to drink 6-8 glasses of fluid every day.
- Water, lower fat milk and sugar-free drinks including tea and coffee all count.
- Fruit juice and smoothies also count but should be limited to no more than a combined total of 150ml per day.

Fibre

- Dietary fibre is a type of carbohydrate found in plant foods.
- Food examples include wholegrain cereals and cereal products; oats; beans; lentils; fruit; vegetables; nuts; and, seeds.
- Dietary fibre helps to: reduce the risk of heart disease, diabetes and some cancers; help weight control; bulk up stools; prevent constipation; improve gut health.
- The recommended average intake for dietary fibre is 30g per day for adults.

Composite/combination food

Much of the food people eat is in the form of dishes or meals with more than one kind of food component in them. For example, pizzas, casseroles, spaghetti bolognese and sandwiches are all made with ingredients from more than one food group. These are often called 'combination' or 'composite' foods.



Meals and snacks can be sorted into The Eatwell Guide food groups.

Composite/combination food - Lasagne



Pasta (lasagne sheets): **Potatoes, bread, rice, pasta or other starchy carbohydrates**

Onions, garlic and chopped tomatoes: **Fruit and vegetables**

Lean minced meat (or meat substitute): **Beans, pulses, fish, eggs, meat and other protein** –

Cheese sauce made with milk and cheese: **Dairy and alternatives**

Olive/vegetable oil used to cook onions and mince: **Oil and spreads**



Key terms

The Eatwell Guide: A healthy eating model showing the types and proportions of foods needed in the diet.

Hydration: The process of replacing water in the body.

Dietary fibre: A type of carbohydrate found in plant foods.

Composite/combination food: Food made with ingredients from more than one food group.

Effects of Health and Fitness Activities on the Body

This is the 6th unit of the NCFE level 1 / 2 Technical award in Health and Fitness.

Short term effects of health and fitness activities

- Breathing rate
- Heart rate, stroke volume and cardiac output
- Blood pressure
- Body temperature (sweating)
- Hydration levels
- Muscle fatigue
- Delayed onset of muscular soreness (DOMS)

Long – term effects of health and fitness activities

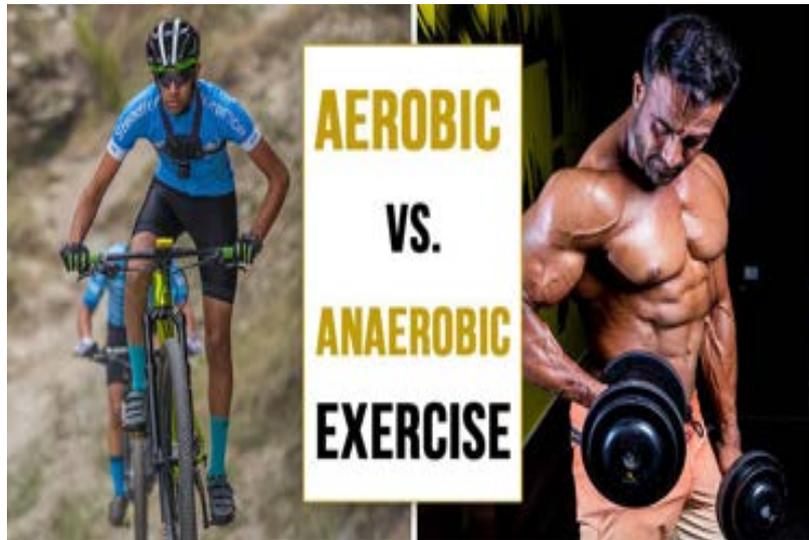
- Cardiovascular endurance
- Efficiency to use oxygen
- Blood pressure
- Resting heart rate
- Muscular endurance
- Muscular strength
- Muscle hypertrophy
- Red blood cells
- Flexibility
- Body shape – endomorph, ectomorph, mesomorph

GCSE Physical Education – The Effects of exercise on body systems

<u>Short term effects of exercise</u>	<u>Long term effects of exercise</u>
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Muscular system</p>  <ul style="list-style-type: none"> - Muscle temperature increases - Metabolism increases - Lactic Acid production increases </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Cardiovascular system</p> <p>ANTICIPATORY RISE begins: The body is reacting before exercise through ADRENALINE</p>  <ul style="list-style-type: none"> - Heart rate increases - Stroke volume increases - Cardiac output increases <p>VASCULAR SHUNT TAKES PLACE (redistribution of blood from internal organs meaning MORE blood goes to the working muscles)</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Respiratory system</p>  <ul style="list-style-type: none"> - Respiratory rate increases - Tidal volume increases - Minute ventilation increases </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Muscular system</p>  <ul style="list-style-type: none"> - Muscular hypertrophy occurs (increase in size) - Muscular strength increases - Muscular endurance increases - Muscular resistance to fatigue increases - Strength of tendons increases - Increase in capillarisation at the muscles </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Cardiovascular system</p>  <ul style="list-style-type: none"> - Cardiovascular hypertrophy occurs (increase in size) - Heart strength increases - Increase in resting stroke volume - Increase in resting Cardiac output - Decrease in resting heart rate - Increase in rate of recovery from exercise - Bradycardia occurs (heart rate below 60 bpm) - Reduced risk of heart attacks / CHD </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Respiratory system</p>  <ul style="list-style-type: none"> - Increase in aerobic capacity - Increase in strength of respiratory muscles (intercostals) - Increase in tidal volume during exercise - Increase in minute volume during exercise - Increase in capillarisation around the alveoli </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Skeletal system</p>  <ul style="list-style-type: none"> - Increase in bone density </div>

Energy Systems

This is the 5th unit of the NCFE level 1 / 2 Technical award in Health and Fitness.



Anaerobic and Aerobic energy systems

Anaerobic energy system

- Non oxygen dependent
- Short duration activities between 1 second and 60 seconds
- Lactic acid is a by product
- Examples – sprinting, lifting weights

Aerobic energy system

- Oxygen dependent
- Long duration activities, more than 1 minute
- Carbon dioxide and water are by products
- Examples – running, biking, swimming, walking

Fitness Testing

Health – related fitness tests

- Cardiovascular endurance
- Muscular strength
- Muscular endurance
- Body composition
- Flexibility

Health related fitness	Fitness test
Body Composition	% body fat test -
Muscular Strength	Hand grip dynamometer
Muscular Endurance	Sit up, press up bleep test.
Flexibility	Sit and reach test
Cardiovascular Endurance	Multi-stage fitness test (bleep test)

Skill – related fitness tests

- Agility
- Speed
- Coordination
- Power
- Balance
- Reaction

Using data

Normative data

Age	18-25	26-35	36-45	46-55	56-65	65+
Excellent	>43	>39	>33	>27	>24	>23
Good	37-43	33-39	27-33	22-27	18-24	17-23
Above average	33-36	29-32	23-26	18-21	13-17	14-16
Average	29-32	25-28	19-22	14-17	10-12	11-13
Below Average	25-28	21-24	15-18	10-13	7-9	5-10
Poor	18-24	13-20	7-14	5-9	3-6	2-4
Very Poor	<18	<13	<7	<5	<3	<2

Test and re-test

- This is a way of assessing the reliability / accuracy of the research tool
- The same test is given twice to the same people at different times to see if the scores are the same

Health and Fitness and Principles of Training

This is the 6th and 7th unit of the NCFE level 1 / 2 Technical award in Health and Fitness.

Health and Fitness

- Health – Complete mental, physical and social well-being (a person's mental or physical condition)
- Fitness – The ability to meet the demands of the environment, involving activity that stimulates various systems of the body and maintains a certain condition within the body

Components of fitness

- Components of fitness are categorised as either health related or skill related
- There are 5 Health related fitness components

5 Health related fitness components



6 skill-related components of fitness



Principles of Training

- Specificity – training must be matched to the needs of the sporting activity to improve the fitness in the body parts that sport uses
- Progression – start slowly and gradually increase the amount of exercise and keep overloading
- Overload – to improve any aspect of physical fitness the individual must continually increase the demands placed on the appropriate body systems
- Reversibility – losing the effect of training when working out
- Tedium – Building variety into the training by changing the training method

Principles of FITT

Suggestions for Becoming F.I.T.T.

F

Frequency: refers to how often you are physically active and is usually measured in days per week.

I

Intensity: describes how hard your body is working during physical activity, and it is often described as light, moderate or vigorous.

T

Time: measures how long you spend being physically active during your daily routine.

T

Type: describes what kind of activity you choose such as walking, gardening, hiking, biking, weight training, household chores or playing golf.

Lifestyle Factors

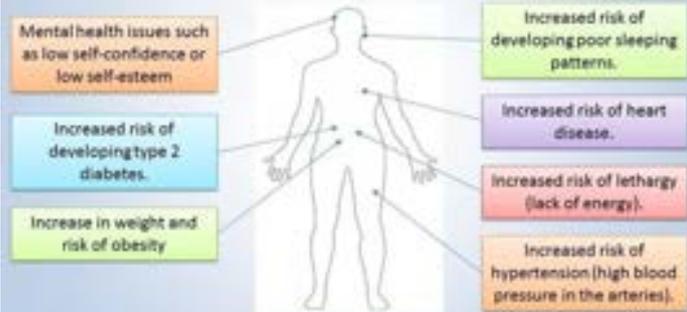
Activity Levels

A healthy active lifestyle is...

Definition: A lifestyle that contributes positively to physical, mental and social wellbeing and which includes regular exercise and physical activity.

Sedentary Lifestyle

A sedentary lifestyle is a lifestyle that includes little or no physical activity at all. Someone living such a lifestyle could experience serious consequences as a result, such as:



Moderate and Vigorous Activities

physical activity

<p>moderate</p> <p>noticeably accelerates the heart rate</p> <p>e.g. brisk walking, dancing, gardening, housework & domestic chores</p>	vs.	<p>vigorous</p> <p>causes rapid breathing and a substantial increase in heart rate</p> <p>e.g. running, fast swimming, fast cycling, competitive sports (e.g. football)</p>
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the intensity of different forms of physical activity varies between people

	HOW YOU'LL FEEL	EXAMPLES
Moderate physical activity	heart beating faster sweating can still talk can't sing	walking fast, cycling, hiking, pushing a lawnmower, doubles tennis, basketball, water aerobics
Vigorous physical activity	heart beating faster sweating a lot breathing hard can't talk	jogging, swimming fast, riding a bike on hills, football, rugby, singles tennis, aerobics, martial arts

Diet

Key Nutrients

- Fat
- Carbohydrate
- Protein
- Vitamins
- Minerals
- Fibre
- Water



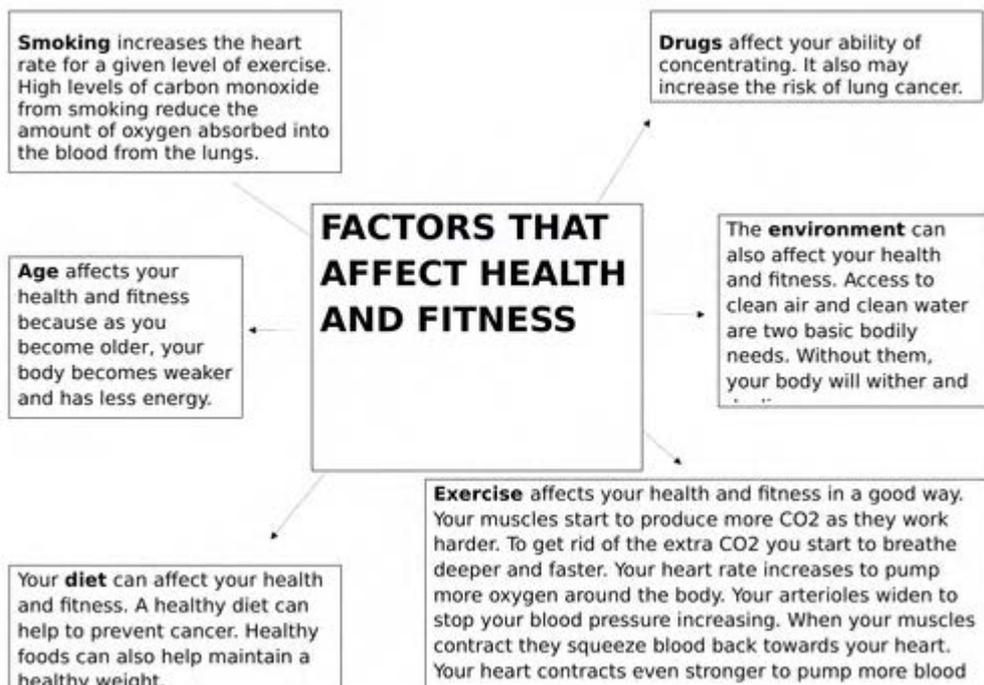
Supporting a healthy lifestyle

- Portion control is important when you're trying to lose weight and keep the weight off
- Healthy eating habits are essential for good health and nutrition

Rest and Recovery

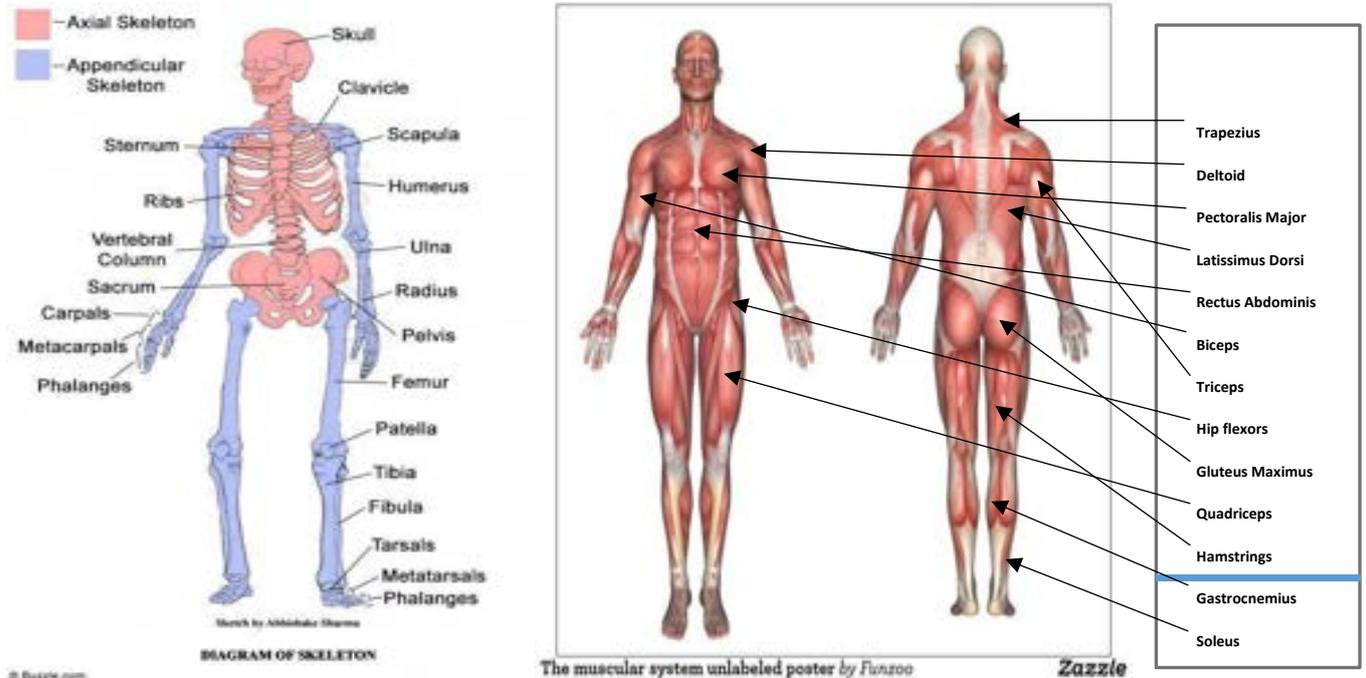
- Nutrition and hydration
- Sleep and rest
- Relaxation and emotional support
- Stretching and active rest

Negative factors affecting health and fitness



The Skeletal and Muscular systems

These are the first and second units of the NCFE level 1 / 2 Technical award in Health and Fitness.



The skeleton is divided into two parts the Axial and Appendicular skeleton. Axial protects, Appendicular is more for movement.

Learn the bones on the diagram and know that the functions of the skeletal system are:

1. Support
2. Movement
3. Protection of vital organs
4. Storage of minerals
5. Blood cell production
6. Shape

There are different types of bones in our body, these types of bones are: (Learn at least 1 example)

1. Long (These include Humerus & Femur)
2. Flat (Ribs, Sternum, Scapula)
3. Irregular (Vertebrae)
4. Short (Carpals, Tarsals)
5. Sesamoid (Patella)

The bones connect via our joints. A joint is defined as follows... "Where two or more bones meet."

1. Fixed Joints (Skull, Pelvis)
2. Slightly moveable joints (Spine)
3. Synovial joints (There are 6 of these synovial joints and you need to learn them, and be able to give an example of each joint.)
 - Pivot (Vertebrae)
 - Condyloid (Wrist)
 - Saddle (Thumb)
 - Gliding (Clavicle)
 - Ball and Socket (Shoulder & Hip)
 - Hinge (Elbow & Knee)

The joints all move in different ways to allow us perform during health and fitness activities. These different types of movement are:

1. Flexion
2. Extension
3. Rotation
4. Adduction
5. Abduction

The structure of a synovial joint

- Articulating cartilage – A joint or the collection of joints that is hinged for bending
- Ligaments – Support the joint
- Tendons – Joins muscle to bone and stretches across joints to allow movement in the joint
- Joint capsule – Lubricates and nourishes the joint while acting as a shock absorber
- Synovial Membrane – Produces synovial fluid
- Synovial fluid – Reduces friction when moving joints

- Hamstrings – Hip and knee movement
- Femur, Tibia and Fibula
 - Femur – Supports body weight
 - Tibia – Support and movement
 - Fibula – Stabilises the ankle and supports the muscles of the lower leg

Structure of the spine and posture

1. Cervical, Thoracic, Lumbar, Sacrum, Coccyx

Posture changes

1. Kyphosis, Lordosis, Scoliosis
 - Kyphosis – Outward curve of the spine, hunched back
 - Lordosis – Inward curve of the spine, back arched downwards
 - Scoliosis – Sideways curve of the spine

The muscular system has 3 types of muscle. 1. Cardiac Muscle (Just for our heart) 2. Smooth Muscle (Found in organs & blood vessels.) 3. Skeletal Muscle (This attaches to our skeletal system. We move these muscles voluntarily.) **Please learn the muscles on the diagram.**

Name and locate the main muscles of the muscular system

1. Deltoid, Trapezius, Latissimus Dorsi, Pectoralis Major, Biceps, Triceps, Rectus Abdominis, Gluteus Maximus, Hip flexors, Quadriceps, Hamstrings, Gastrocnemius and Soleus.

Muscle movement and contraction

1. Agonist or Antagonist
 - Agonist – Muscle contracting
 - Antagonist – Muscle relaxing or strengthening

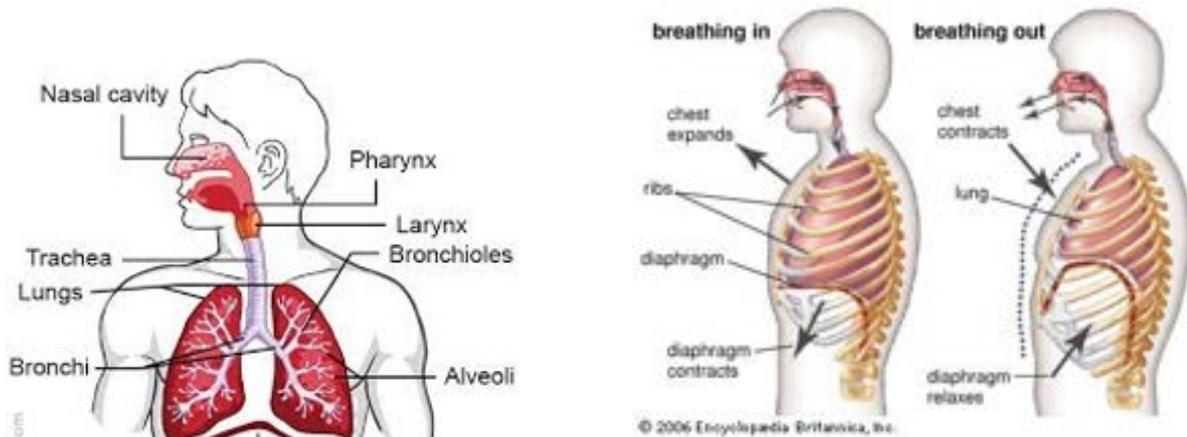
Muscles contract/move in different ways depending on actions of our body, these contractions are either:

1. Isotonic & Isometric
 - Isotonic – Shortening of the muscle
 - Isometric – Helps maintain strength, used to stabilise a joint

Muscle fibres come in two types, Type 1 (Slow twitch) and Type 2 (Fast twitch) we have a combination of these fibres in our body. These fibres are suited to different activities, they have different characteristics these are: Colour, Contraction speed and Resistance to fatigue.

Structure and functions of the respiratory system

This is the 3rd unit of the NCFE level 1 / 2 Technical award in Health and Fitness.



The respiratory system involves those parts of the body that are concerned with breathing. This is called the structure of the respiratory system.

Learn the structure and function of the respiratory system key words and what both systems are used for: The pathway of through the respiratory system is as follows... 1. Oral and Nasal cavity 2. Pharynx 3. Larynx 4. Trachea 5. Lungs 6. Bronchioles 7. Bronchi 8. Alveoli

Breathing is a two-stage process. **Inspiration (Breathing out)** is the intake of air into the lungs, which is brought about by increasing the volume of the chest cavity. **Exhalation (Breathing in)** is the expulsion of air from the lungs through reducing the volume of the chest cavity.

The chest reacts with each breathe that is taken.

When you breathe in: 1. Chest expands 2. Diaphragm contracts

When you breathe out 2.

Diffusion happens once air is in the aveoli. The process called Gaseous exchange takes place, this process moves oxygen and carbon dioxide between the lungs and our blood. The features of the aveoli help this process, the **millions of aveloi** are **moist**, very thin only **1 cell thick** and they're **surrounded by capillaries**.

Lung Volumes change when we are participating in health and fitness activities and when we are at rest.

Tidal Volume = is the normal amount of air breathed out at rest. (About 500ml/ a small bottle of water)

Residual Volume = is the amount of air left in our lungs after we have taken a big breath out. (About 1200ml / over a big litre bottle of water)

Vital capacity = Is the amount of air we breathe out after taking a deep breath in. (About 4.8L / 5 big bottles of water)

Training methods

TRAINING METHODS

Different training methods are suited to different sports and activities. As a result, sports performers must select training methods that suit, or can be adapted, to their chosen activity.

<div style="background-color: #f96; padding: 5px;"> <h3 style="margin: 0;">CONTINUOUS</h3> <p style="font-size: x-small; margin: 0;">Involves long periods of moderate exercise without rest. Work for at least 20 minutes at 60–80% of maximum heart rate. Suitable for endurance events such as long-distance running or cycling.</p> <ul style="list-style-type: none"> + Improves aerobic fitness, cardio-vascular fitness and muscular endurance + Easy to monitor work rate and progression + Limited equipment or facilities required <ul style="list-style-type: none"> - Does not develop other components of fitness - Time consuming - Can become repetitive and boring </div>	<div style="background-color: #e91e63; color: white; padding: 5px;"> <h3 style="margin: 0;">CIRCUIT</h3> <p style="font-size: x-small; margin: 0;">A series of exercises performed in a circuit that can be adapted to suit most sports. Excellent for general fitness and can also incorporate skills, such as passing or dribbling a ball in basketball or football.</p> <ul style="list-style-type: none"> + Develops both aerobic and anaerobic systems + Can be adapted to suit specific sports and improve other components of fitness + Easy to monitor work rate and progression <ul style="list-style-type: none"> - Can require lots of equipment and time to set up - Requires a lot of space - Can be difficult to maintain work rate </div>
<div style="background-color: #0070c0; color: white; padding: 5px;"> <h3 style="margin: 0;">FARTLEK (SPEED PLAY)</h3> <p style="font-size: x-small; margin: 0;">A continuous workout involving changes in speed and/or terrain. Suitable for sports such as netball, rugby, hockey and basketball involving constant changes in intensity.</p> <ul style="list-style-type: none"> + Develops both aerobic and anaerobic systems + Improves cardio-vascular fitness and muscular endurance + Can be adapted to suit most sports and improve other components of fitness <ul style="list-style-type: none"> - Can become repetitive and boring - Difficult to monitor work rate and progression - Can be difficult to maintain work rate </div>	<div style="background-color: #008000; color: white; padding: 5px;"> <h3 style="margin: 0;">WEIGHT TRAINING</h3> <p style="font-size: x-small; margin: 0;">A type of interval training that involves using weights as a form of resistance. Can be used to aid recovery after injury. Suitable for all activities especially those involving power and strength, such as shot put, sprinting, rugby and wrestling.</p> <ul style="list-style-type: none"> + Improves muscular strength, endurance, size and power + High reps, low weight for muscular endurance + Low reps, high weight for strength and power + Easy to monitor work rate and progression <ul style="list-style-type: none"> - Requires specialist equipment - Can cause serious injury if incorrect techniques are used </div>
<div style="background-color: #800080; color: white; padding: 5px;"> <h3 style="margin: 0;">INTERVAL</h3> <p style="font-size: x-small; margin: 0;">Involves alternating periods of work and rest. Suitable for sports such as basketball, rugby, hockey and netball, which have alternating period of intense effort and rest.</p> <ul style="list-style-type: none"> + Develops both aerobic and anaerobic systems + Can be adapted to suit specific sports and improve other components of fitness + Easy to monitor work rate and progression <ul style="list-style-type: none"> - Can become repetitive and boring - Can be difficult to maintain work rate </div>	<div style="background-color: #ff0000; color: white; padding: 5px;"> <h3 style="margin: 0;">CROSS TRAINING</h3> <p style="font-size: x-small; margin: 0;">Combines different training methods to create unique and tailored training programmes. Suitable for sports that require a variety of components of physical fitness, such as triathlons and decathlons.</p> <ul style="list-style-type: none"> + Training programmes can be tailored to the specific needs of the performer + Provides variety + Improves a variety of components of physical fitness <ul style="list-style-type: none"> - Lots of different exercises to learn - Need to ensure rest is incorporated </div>

Other training methods include: Flexibility/Mobility, SAQ (Speed, Agility, Quickness) and Plyometrics.

- **Circuit training** involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance.
- **Continuous training** involves working for a sustained period of time without rest. It improves cardio-vascular fitness.
- **Cross training** involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump.
- **Fartlek training** or 'speed play' training involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness.
- **Interval training** involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance.
- **Weight training** uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).