

### Categories of a HAL

- **Physical (P)**
- **Mental (M)**
- **Social (S)**

**PMS**

**3**

#### Health

• A state of complete mental, physical and social wellbeing and not merely the absence of disease or infirmity

#### Exercise

• A form of physical activity done to maintain or improve physical fitness

### Benefits of a HAL

- Relive stress (**M**)
- Increase Self esteem (**M**)
- Improve Cardiovascular endurance (**P**)
- Lose weight if previously overweight (**P**)
- Meet new friends (**S**)
- Enjoyment - *serotonin* (**M**)

#### Fitness

• The ability to meet the demands of the environment

#### Performance

• How well a task is completed

### Influences on taking part

- **Cultural**
  - **Health and Wellbeing**
  - **Image**
  - **Resources**
  - **People**
  - **Socio-economic**
- Chirps**
- 6**

#### Sports participation pyramid



Feel Positive about Physical Education

### Initiatives

- Increase participation
- Retain people
- Create opportunities
- **Sport England**
- **Youth Sport Trust**
- **National governing bodies**

#### Roles in sport

- Leadership - Coach, manager
  - Officiating - Referee
  - Performer
  - Volunteer
- 4**

#### Treatment of injuries

- Rest
  - Ice
  - Compression
  - Elevation
- RICE**

#### Skill related fitness

- Agility
  - Balance
  - Co-ordination
  - Power
  - Reaction time
  - Speed
- ABCPRS**
- 6**

#### Health related fitness

- Flexibility
  - Muscular Endurance
  - Muscular Strength
  - Cardiovascular Fitness / endurance
  - Body Composition
- Fat Men Eat More Sweets  
Cos Fit Boys Can't**
- 5**

#### Principles of Training

- Individual needs
  - Progressive Overload
  - Rest
  - Recovery
  - Reversibility
  - FITT (Frequency, Intensity, Time, Type)
- ISPORRRFITT**
- 6**

#### Methods of Training

- Circuit
  - Continuous
  - Cross
  - Weight
  - Interval
  - Fartlek
- CCCWIF**
- 6**

#### Goal setting

- Specific
  - Measurable
  - Achievable
  - Realistic
  - Time Bound
- SMART**

#### Drugs in sport

- Stimulants
  - Narcotic analgesics
  - Anabolic steroids
  - Peptide hormones (EPO)
  - Diuretics
  - Beta Blockers
- 6**

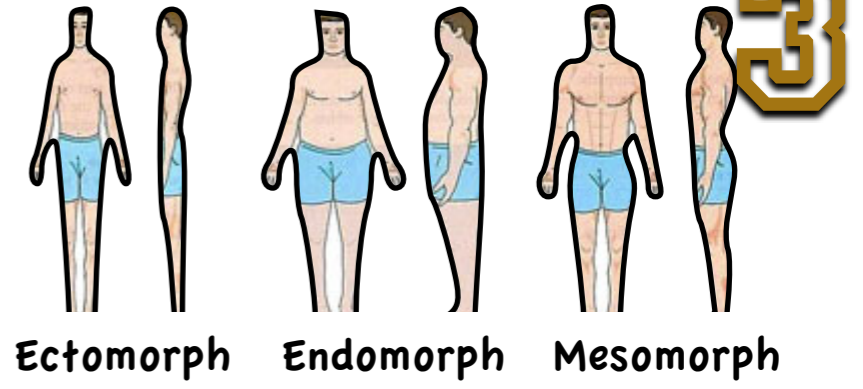
#### Preventing risks

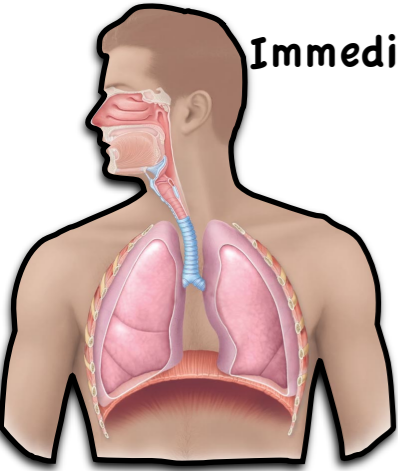
- PAR-Q
- Warming up
- Cooling down
- Checking equipment
- Balanced competition
- Correct clothing
- Playing by the rules

#### Balanced diet

- Carbohydrates
  - Proteins
  - Fats
  - Minerals
  - Vitamins
  - Fibre
  - Water
- Can Purple Fish  
Mark Very Fat  
Whales**
- 7**

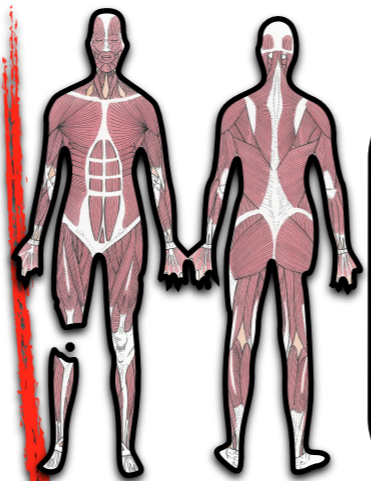
#### Somatotypes





### Immediate effects of exercise

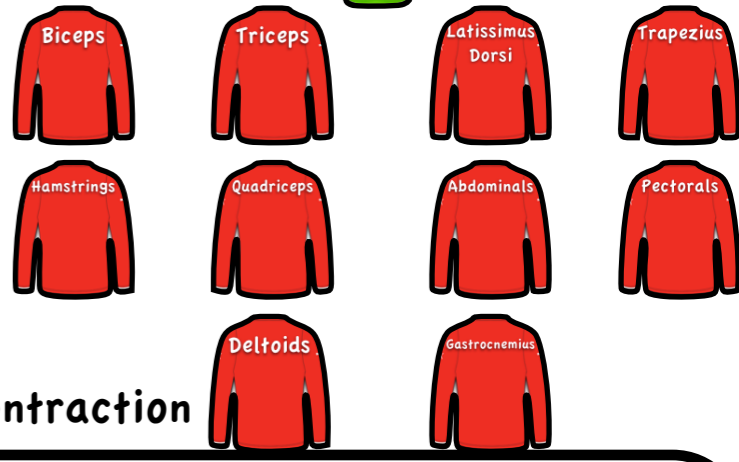
- Increase breathing rate
- Increase depth of breathing
- Increase removal of CO<sub>2</sub>
- Increase amount of O<sub>2</sub> taken into the lungs



### Short term effects

- Increased in muscle temperature
- Increased demand for O<sub>2</sub>
- Increased production of CO<sub>2</sub>
- Increased lactic acid production
- Muscle fatigue

### GCSE PE Muscles Line-up



### Oxygen Debt

- This is the extra amount of oxygen required after anaerobic exercise, compared with the amount normally needed when at rest

### Long term training effects

- Increased number of alveoli
- Increased strength of intercostal muscles
- Increased strength of the diaphragm
- Increased lung volume

### Antagonistic pairs

- While one muscle contracts, another relaxes to create movement

### Long term effects

- Increased strength of muscles
- Increased muscle hypertrophy
- Increased myoglobin stores

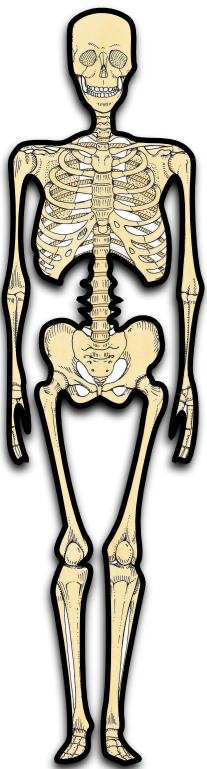
### Muscle contraction

- ISOTONIC muscle contractions that result in movement
- ISOMETRIC muscle contractions that result in no muscle movement

### Long term training effects

- Increase in size and strength of the heart
  - Increase in stroke volume
- Cardiac Hypertrophy**

### Effects of exercise on Skeleton



- Reduced chance of osteoporosis
- Better posture
- Increased bone density

### Functions of Skeleton

- Movement
- Shape and Support
- Protection
- Blood production
- Attachment for muscles

### Types of Joints

- Ball and Socket
- Hinge
- Pivot

### Movements

- Flexion
- Extension
- Abduction
- Adduction
- Rotation

### Long term training effects

- Lower resting heart rate
- Increased MAXIMUM cardiac output

### Stroke volume

- The amount of blood leaving the heart each beat

### Heart rate

- The number of times the heart beats per minute

### Systolic blood pressure

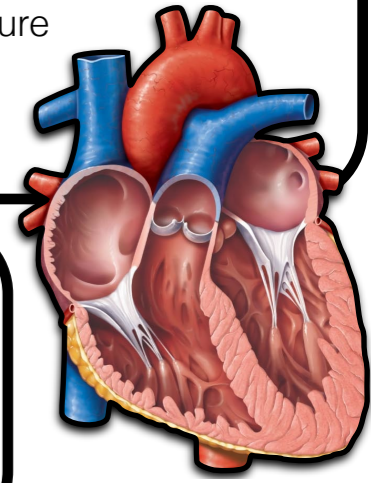
- The pressure when blood is being pumped out of the heart

### Functions of the Cardiovascular system

- Transport oxygen in the blood to the working muscles
- Remove waste products
- Return the blood to the lungs for oxygenation

### Immediate effects of exercise

- Increase in heart rate
- Increase in stroke volume
- Increase in systolic blood pressure



# GCSE PE Muscles Line-up

