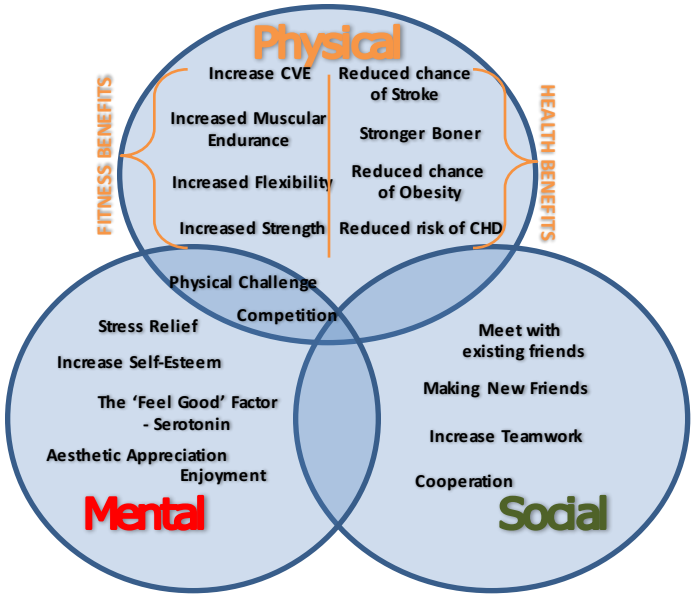
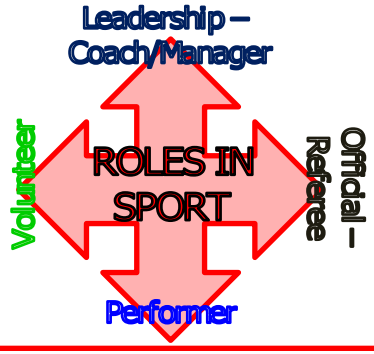
## 1.1.1

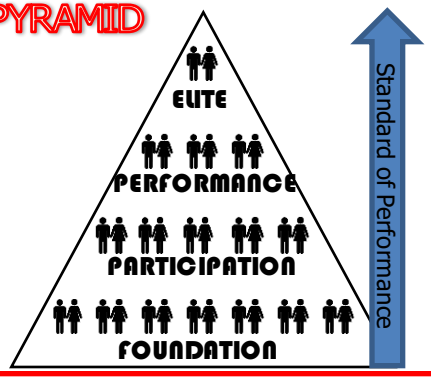



## 1.1.2


Culture – D.R.A.G
Health & Wellbeing
Image – M&F
Resources – A.A.L.T
People – F.P.RM
Socio-Economic




### SPORTS PARTICIPATION PYRAMID




### AGENCIES

- SPORT ENGLAND – Start, Stay, Succeed
- NATIONAL GOVERNING BODIES
- YOUTH SPORT TRUST
- SCHOOL SPORTS PARTNERSHIPS
- PESSCL – Physical Education School Sport Club Links

## 1.1.3

**HEALTH:**
"A complete state of mental, physical and social wellbeing and not merely the absence of disease and infirmity."

**FITNESS:**
"The ability to meet the demands of the environment."

**EXERCISE:**
"A form of physical activity done to maintain or improve health and/or physical fitness, it is not competitive sport."

### HEALTH RELATED FITNESS COMPONENTS

- FLEXIBILTY
- MUSCULAR ENDURANCE
- MUSCULAR STRENGTH
- CARDIOVASCULAR FITNESS
- BODY COMPOSITION

REMEMBER:
Fat Men Eat More Sweets Cos Fit Boys Can't

### SKILL RELATED FITNESS COMPONENTS

- POWER
- COORDINATION
- REACTION TIME
- AGILITY
- BALANCE
- SPEED

REMEMBER:
Power CRABS

1.1.4

## PAR-Q: Physical Activity Readiness Questionnaire

## PRINCIPLES OF TRAINING:

- SPECIFICITY
- PROGRESSIVE OVERLOAD
- INDIVIDUAL DIFFERENCES
- REST and RECOVERY
- REVERSIBILITY

**F** – Frequency
**I** – Intensity
**T** – Time
**T** – Type

## METHODS OF TRAINING

- Interval
- Continuous
- Fartlek
- Circuit
- Weight
- Cross

## FITNESS TESTS: HEALTH

- Cooper's 12-minute run test
- Multi-Stage Fitness test (Bleep test)
- Hand grip strength test
- Sit and Reach flexibility test
- Harvard Step Test

## FITNESS TESTS: SKILL

- Illinois Agility Run test
- Standing Stork test
- Sergeant Jump test
- Standing Broad Jump
- Ruler Drop test
- 30-metre Sprint

## SMART Targets

- Specific
- Measurable
- Achievable
- Realistic
- Time Bound

## HEART RATE

- Resting
- Working
- Recovery

## AEROBIC & ANAEROBIC

Aerobic = with o2
Anaerobic = without o2

## TRAINING ZONE

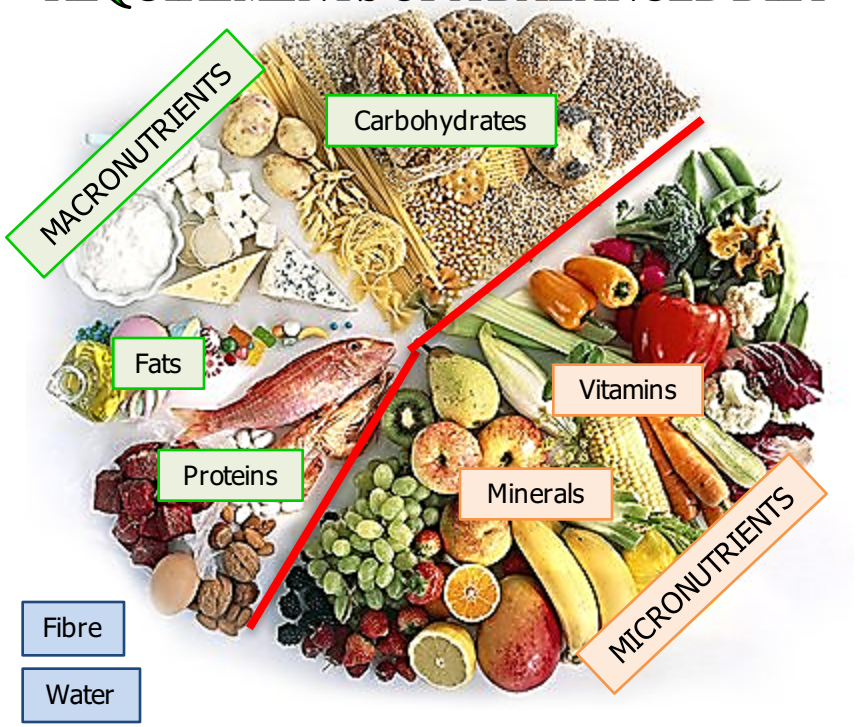
- Anaerobic = 80 to 90% of max heart rate
- Aerobic = 60 to 80% of max heart rate
- MHR = 220 - age

## WARM-UP/ MAIN SESSION/ COOL-DOWN

**Know the phases of each!**

1.1.5

## REQUIREMENTS OF A BALANCED DIET




## TIMING OF DIET

- Average meal – at least 2 hours
- Large meal – up to 4 hours

### WHY IS TIMING IMPORTANT?

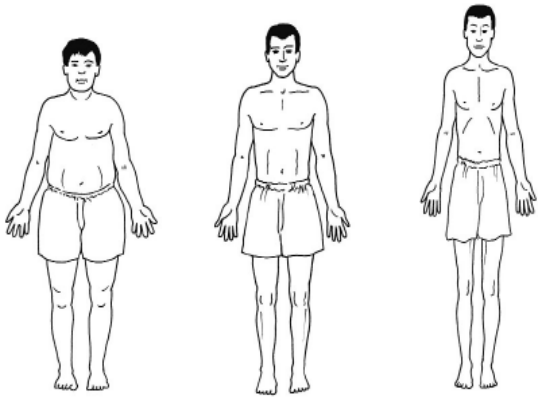
- Undigested food can make you feel nauseous
- Lack of energy

## REDISTRIBUTION OF BLOOD FLOW (BLOOD SHUNTING)

**VASOCONSTRICTION** – blood vessels CONSTRICT to reduce blood flow to INACTIVE areas (digestive system)

**VASODILATION** – blood vessels DILATE to increase blood supply to ACTIVE areas (working muscles)

# 1.2.1 SOMATOTYPES



**Endomorph** **Mesomorph** **Ectomorph**

## FACTORS AFFECTING OPTIMUM WEIGHT

- HEIGHT
- SEX
- MUSCLE GIRTH
- BONE STRUCTURE/DENSITY

## ANOREXIA

ANOREXIA NERVOSA – serious eating disorder. Sufferer has an obsessive wish to lose weight. Can result in:

- Fatigue
- Fainting/Dizziness
- Dehydration
- Muscular Atrophy (reduction in muscle size)
- Death

## UNDERWEIGHT

Not weighing as much as expected for your height and sex. It is not healthy to be underweight.

## IMPACT ON PHYSICAL ACTIVITY

Being anorexic or very underweight will lead to serious health issues. Fitness and performance levels will clearly deteriorate.

## OVERWEIGHT

- Weighing more than expected for your height and sex
- Not necessarily harmful – unless also Overfat
- Overweight can be due to other factors, e.g. muscle girth and bone density

## OVERFAT

- More body fat than you should have
- Excessive fat in the body can lead to:
  - High Blood Pressure
  - High Cholesterol

## OBESE

Very Overfat. Fat levels have increased to a seriously unhealthy level. High levels of excess fat can lead to:

- Lack of Flexibility
- Additional stress on bones and joints
- Heart Disease
- Type 2 Diabetes
- Depression due to low self-esteem

## PERFORMANCE ENHANCING DRUGS

- ANABOLIC STEROIDS
- BETA BLOCKERS
- DIURETICS
- NARCOTIC ANALGESICS
- STIMULANTS
- PEPTIDE HORMONES – EPO

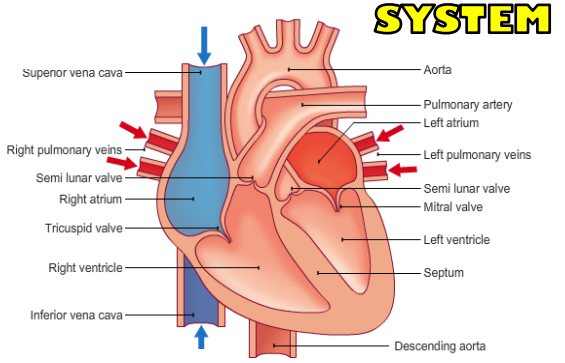
## RECREATIONAL DRUGS

- ALCOHOL
- NICOTINE/SMOKING

## PREVENTING RISKS IN PHYSICAL EDUCATION


- WARM-UP/COOL-DOWN
- CHECKING EQUIPMENT and FACILITIES
- PAR-Q
- BALANCED COMPETITION
- ADHERENCE TO RULES
- CORRECT CLOTHING

# 1.2.2 CARDIOVASCULAR SYSTEM




## IMMEDIATE and SHORT-TERM EFFECTS OF EXERCISE

- INCREASED HEART RATE (beats per minute)
- INCREASED BLOOD PRESSURE (systolic & diastolic)
- INCREASED STROKE VOLUME (amount of blood leaving heart per beat)
- INCREASED BLOOD TEMPERATURE

## LONG-TERM ADAPTATIONS

- DECREASED RESTING HEART RATE
- INCREASED CARDIAC OUTPUT (amount of blood pumped out of the heart per minute)
- FASTER RECOVERY RATE
- REDUCED BLOOD PRESSURE
- HYPERTROPHY OF THE MYOCARDIUM (increased size and strength of heart)
- HEALTHY VEINS AND ARTERIES
- INCREASED NUMBER OF CAPILLARIES

## REST

Allows time for recovery and adaptations to take place

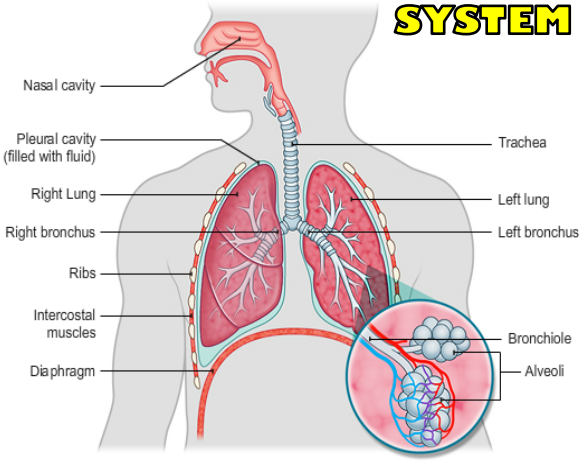
## DIET

- LDL = bad cholesterol
- HDL = good cholesterol

## DRUGS

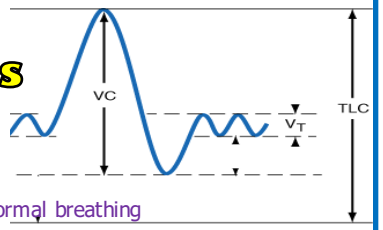
- Alcohol = increased blood pressure & heart failure
- Nicotine = Heart disease & blood clots

# 1.2.3 RESPIRATORY SYSTEM




## IMMEDIATE and SHORT-TERM EFFECTS OF EXERCISE

- INCREASED BREATHING RATE (faster breathing)
- INCREASED DEPTH OF BREATHING (more air taken in with each breath)




## LONG-TERM ADAPTATIONS

- INCREASED NUMBER OF ALVEOLI
- INCREASED STRENGTH OF INTERCOSTALS
- INCREASED STRENGTH OF DIAPHRAGM
- INCREASED TOTAL LUNG VOLUME (TLC) - total volume of air in your lungs)
- INCREASED TIDAL VOLUME (VT) - total amount of air breathed in and out during normal breathing
- INCREASED VITAL CAPCITY (VC) - the maximum you can forcibly breath in and out

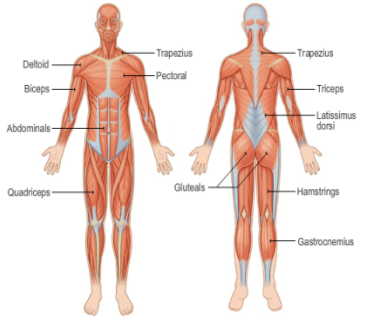
## OXYGEN DEBT

The extra amount of oxygen required AFTER ANAEROBIC exercise, compared with the amount normally needed when at rest. (no O2 Debt during aerobic exercise)

## EFFECT OF SMOKING

- REDUCED UPTAKE OF O2 BY RED BLOOD CELLS
- LUNG CANCER
- CAUSES BREATHLESSNESS
- BRONCHITIS and EMPHYSEMA

# 1.2.4 MUSCULAR SYSTEM




## ANTAGONISTIC PAIRS

Muscles work together in pairs to move joints. While one CONTRACTS the other RELAXES to create movement.

- Contracting muscles = AGONIST (prime mover)
- Relaxed muscle = ANTAGONIST

e.g. Biceps (agonist) contract to flex the elbow as the Triceps (antagonist) relaxes

## MUSCLE CONTRACTIONS

- ISOTONIC – these provide the muscles with movement
- ISOMETRIC – these are where the muscles contract but there is no visible movement – 'stationary'

## SOFT TISSUE INJURY

- MUSCLE STRAIN
- MUSCLE ATROPHY (opposite to hypertrophy)

## SHORT-TERM EFFECTS

- INCREASE MUSCLE TEMPERATURE
- INCREASE DEMAND FOR O2
- INCREASE PRODUCTION OF CO2
- INCREASE LACTIC ACID PRODUCTION
- MUSCLE FATIGUE

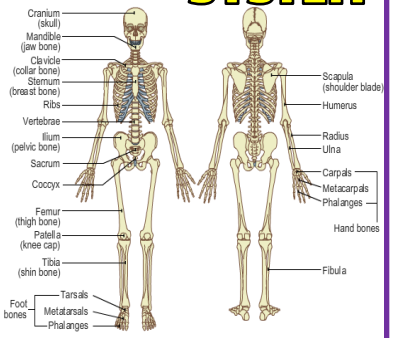
## IMPORTANCE OF REST

- Allows time to recover after exercise for adaptations to take place

## LONG-TERM ADAPTATIONS

- INCREASED STRENGTH OG MUSCLES
- INCREASED MUSCLE HYPERTROPHY 9increased size of muscles)
- INCREASED MYOGLOBIN STORES
- TENDONS AND LIGAMENTS ALSO GET STRONGER

# 1.2.5 SKELETAL SYSTEM




## FUNCTIONS

- SUPPORT
- PROTECTION
- MOVEMENT

## JOINTS

HINGE JOINTS

- KNEE & ELBOW
- FLEXION & EXTENSION

BALL AND SOCKET JOINTS

- HIP & SHOULDER
- FLEXION, EXTENSION, ROTATION, ABDUCTION & ADDUCTION

## LONG-TERM EFFECTS OF EXERCISE

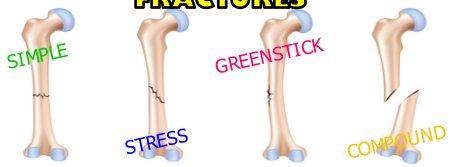
- INCREASED BONE DENSITY

- Reduced chance of OSTEOPOROSIS
- Better posture
- Reduced chance of fractures

- STRONGER LIGAMENTS AND TENDONS

BONE DENSITY CAN BE IMPROVED THROUGH A BALNACED DIET CONTAINING CALCIUM & VITAMIN D AND THROUGH WEIGHT-BEARING ACTIVITIES SUCH AS RUNNING, WALKING AND AEROBICS.

## POTENTIAL INJURIES: FRACTURES



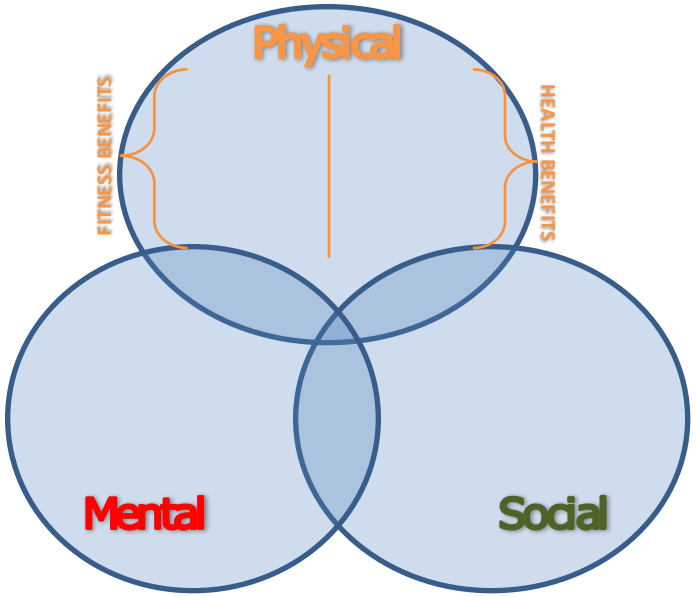

## POTENTIAL INJURIES: JOINTS

- TENNIS ELBOW
- GOLFERS ELBOW
- DISLOCATION
- SPRAIN
- TORN CARTILAGE

## TREATMENT OF JOINT/MUSCULAR INJURIES

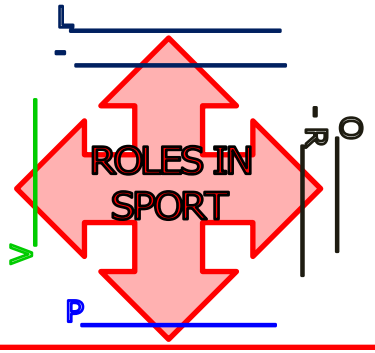
- REST
- ICE
- COMPRESSION
- ELEVATION

## 1.1.1

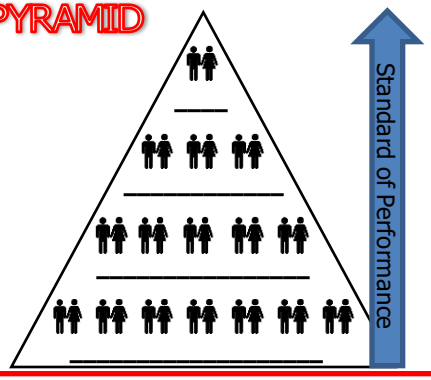



## 1.1.2


C_____
H_____ & W_____
I_____
R_____
P_____
S_____




### SPORTS PARTICIPATION PYRAMID




### AGENCIES

- S_____ E_____
- N_____ G_____ B_____
- Y_____ S_____ T_____
- S_____ S_____ P_____
- PESSCL – P_____ E_____ S_____ S_____ C_____ L_____

## 1.1.3

**HEALTH:**
"A _____state of _____, _____ and _____ wellbeing and not merely the absence of _____ and _____."

**FITNESS:**
"The _____ to meet the _____ of the _____."

**EXERCISE:**
"A form of _____ _____ done to maintain or improve _____ and/or physical _____, it is not _____ sport."

### HEALTH RELATED FITNESS COMPONENTS

- F_____
- M_____ E_____
- M_____ S_____
- C_____
- F_____

REMEMBER: Men Eat More Sweets Cos Fit Boys Can't

### SKILL RELATED FITNESS COMPONENTS

- P_____
- C_____
- R_____ T_____
- A_____
- B_____
- S_____

REMEMBER: Power CRABS

1.1.4

## PAR-Q: _____

## PRINCIPLES OF TRAINING:

- S_____
- P_____
  O_____
- I_____
  D_____
- R___ and
  R_____
- R_____

F – F_____

I – I_____

T – T_____

T – T_____

## METHODS OF TRAINING

- I_____
- C_____
- F_____
- C_____
- W_____
- C_____

## FITNESS TESTS: HEALTH

- _____
- _____
- _____
- _____
- _____

## FITNESS TESTS: SKILL

- _____
- _____
- _____
- _____
- _____
- _____

## SMART Targets

- S_____
- M_____
- A_____
- R_____
- T_____ B_____

## HEART RATE

- R_____
- W_____
- R_____

## AEROBIC & ANAEROBIC

Aerobic = _____

Anaerobic = _____

## TRAINING ZONE

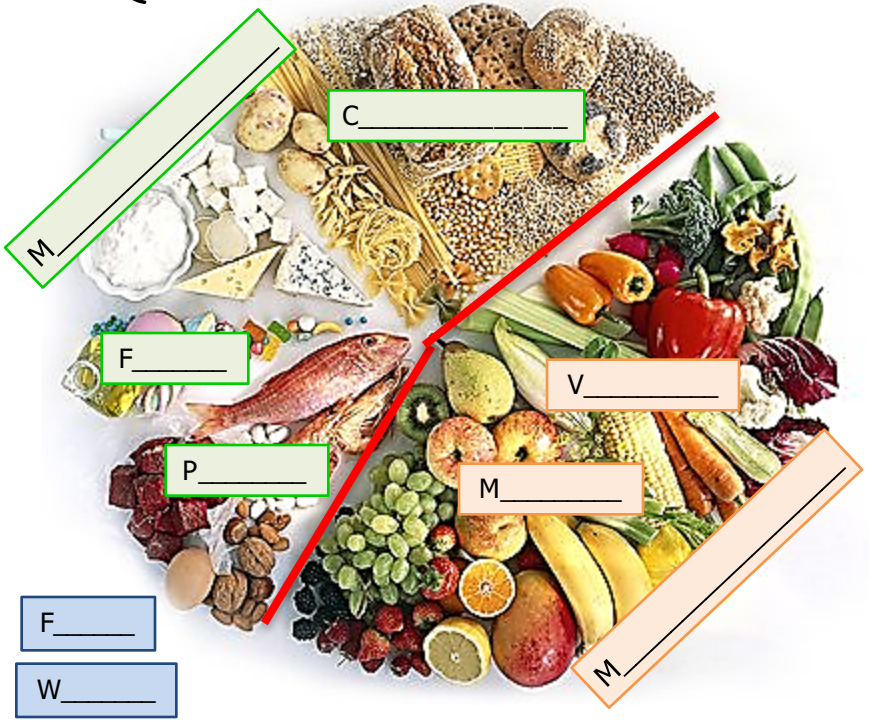
- Anaerobic = _____
- Aerobic = _____
- MHR = _____

## WARM-UP/ MAIN SESSION/ COOL-DOWN

**Know the phases of each!**

1.1.5

## REQUIREMENTS OF A BALANCED DIET




## TIMING OF DIET

- Average meal – _____
- Large meal – _____

### WHY IS TIMING IMPORTANT?

- _____ food can make you feel _____
- Lack of _____

## REDISTRIBUTION OF BLOOD FLOW (BLOOD SHUNTING)

**VASOCONSTRICTION –**

_____

_____

_____

_____

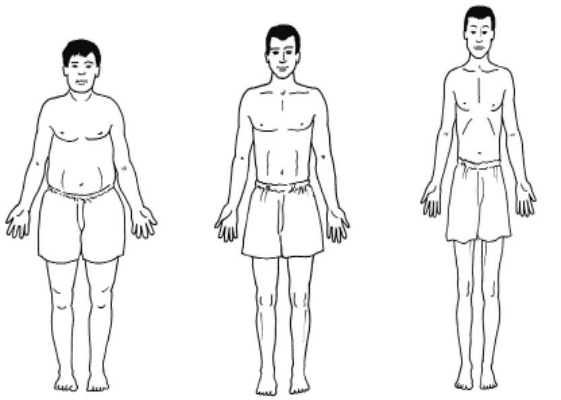
**VASODILATION –**

_____

_____

_____

# 1.2.1 SOMATOTYPES



_____ _____ _____

## FACTORS AFFECTING OPTIMUM WEIGHT

- H_____
- S_____
- M_____ G_____
- B_____ S_____/D_____

## ANOREXIA

ANOREXIA NERVOSA – serious eating disorder. Sufferer has an obsessive wish to lose weight. Can result in:

- F_____
- F_____/D_____
- D_____
- M_____ A_____
- D_____

## UNDERWEIGHT

Not weighing as much as expected for your height and sex. It is not healthy to be underweight.

## IMPACT ON PHYSICAL ACTIVITY

Being anorexic or very underweight will lead to serious health issues. Fitness and performance levels will clearly deteriorate.

## o_____

- Weighing more than expected for your height and sex
- Not necessarily harmful – unless also Overfat
- Overweight can be due to other factors, e.g. muscle girth and bone density

## o_____

- More body fat than you should have
- Excessive fat in the body can lead to:
  - High Blood Pressure
  - High Cholesterol

## o_____

Very Overfat. Fat levels have increased to a seriously unhealthy level. High levels of excess fat can lead to:

- Lack of Flexibility
- Additional stress on bones and joints
- Heart Disease
- Type 2 Diabetes
- Depression due to low self-esteem

## PERFORMANCE ENHANCING DRUGS

- A_____ S_____
- B_____ B_____
- D_____
- N_____ A_____
- S_____
- P_____ H_____

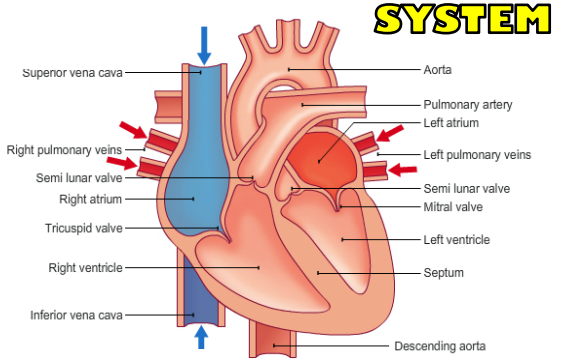
## RECREATIONAL DRUGS

- A_____
- N_____/S_____

## PREVENTING RISKS IN PHYSICAL EDUCATION


- W_____/C_____
- C_____ E_____ and F_____
- P_____
- B_____ C_____
- A_____ to R_____
- C_____ C_____

# 1.2.2 CARDIOVASCULAR SYSTEM




## IMMEDIATE and SHORT-TERM EFFECTS OF EXERCISE

- INCREASED H_____ R_____ (beats per minute)
- INCREASED B_____P_____ (systolic & diastolic)
- INCREASED S_____ V_____ (amount of blood leaving heart per beat)
- INCREASED B_____ T_____

## LONG-TERM ADAPTATIONS

- DECREASED R_____ HEART RATE
- INCREASED C_____ O_____ (amount of blood pumped out of the heart per minute)
- FASTER R_____ R_____
- REDUCED B_____ P_____
- H_____ OF THE M_____ (increased size and strength of heart)
- HEALTHY V_____ AND A_____
- INCREASED NUMBER OF C_____

## REST

Allows time for _____ and _____ to take place

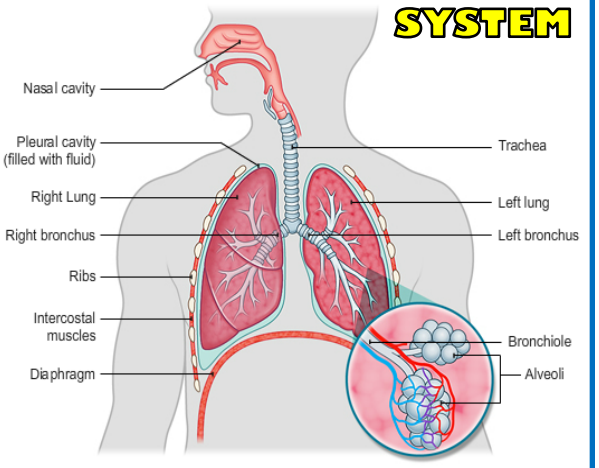
## DIET

- LDL = _____
- HDL = _____

## DRUGS

- Alcohol = _____
- Nicotine = _____

# 1.2.3 RESPIRATORY SYSTEM

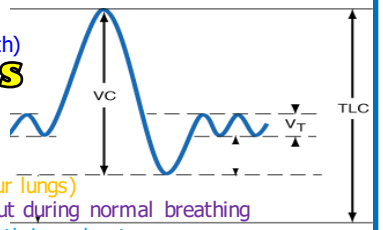



## IMMEDIATE and SHORT-TERM EFFECTS OF EXERCISE

- INCREASED B_____ R_____ (faster breathing)
- INCREASED D_____ OF B_____ (more air taken in with each breath)

## LONG-TERM ADAPTATIONS

- INCREASED NUMBER OF A_____
- INCREASED STRENGTH OF I_____
- INCREASED STRENGTH OF D_____
- INCREASED T_____ L_____ V_____ (TLC) - total volume of air in your lungs)
- INCREASED T_____ V_____ (VT) - total amount of air breathed in and out during normal breathing
- INCREASED V_____ C_____ (VC) - the maximum you can forcibly breath in and out



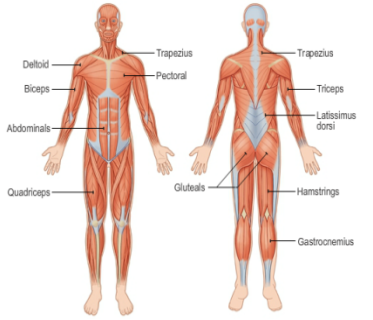

## OXYGEN DEBT

The extra amount of oxygen required AFTER ANAEROBIC exercise, compared with the amount normally needed when at rest. (no O2 Debt during aerobic exercise)

## EFFECT OF SMOKING

- REDUCED UPTAKE OF _____ BY R_____ B_____ C_____
- L_____ C_____
- CAUSES B_____
- B_____ and E_____

# 1.2.4 MUSCULAR SYSTEM




## ANTAGONISTIC PAIRS

Muscles work together in pairs to move joints. While one C_____ the other R_____ to create movement.

- Contracting muscles = _____ (prime mover)
- Relaxed muscle = _____

e.g. Biceps (agonist) contract to flex the elbow as the Triceps (antagonist) relaxes

## MUSCLE CONTRACTIONS

- I_____ – these provide the muscles with movement
- I_____– these are where the muscles contract but there is no visible movement – 'stationary'

## SOFT TISSUE INJURY

- MUSCLE S_____
- MUSCLE A_____ (opposite to hypertrophy)

## SHORT-TERM EFFECTS

- INCREASE M_____T_____
- INCREASE DEMAND FOR _____
- INCREASE PRODUCTION OF _____
- INCREASE L_____ A_____ PRODUCTION
- M_____ F_____

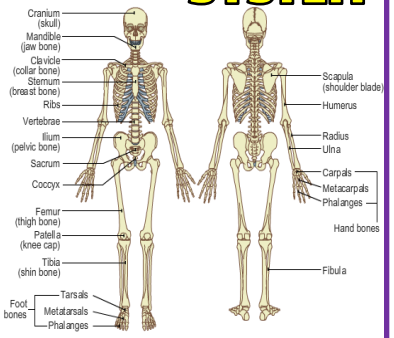
## IMPORTANCE OF REST

- Allows time to _____ after exercise for _____ to take place

## LONG-TERM ADAPTATIONS

- INCREASED S_____ OF MUSCLES
- INCREASED MUSCLE H_____ 9increased size of muscles)
- INCREASED M_____ STORES
- T_____ AND L_____ ALSO GET STRONGER

# 1.2.5 SKELETAL SYSTEM




## FUNCTIONS

- S_____
- P_____
- M_____

## JOINTS

H_____ JOINTS

- KNEE & ELBOW
- F_____ & E_____

B_____ AND S_____ JOINTS

- HIP & SHOULDER
- F_____, E_____, R_____, A_____ & A_____

## LONG-TERM EFFECTS OF EXERCISE

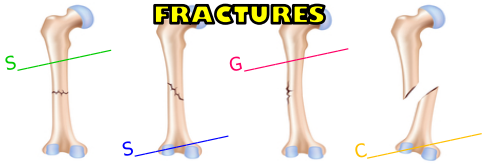
- INCREASED B_____ D_____

- Reduced chance of O_____
- Better P_____
- Reduced chance of F_____

- STRONGER L_____ AND T_____

BONE DENSITY CAN BE IMPROVED THROUGH A BALNACED DIET CONTAINING CALCIUM & VITAMIN D AND THROUGH WEIGHT-BEARING ACTIVITIES SUCH AS RUNNING, WALKING AND AEROBICS.

## POTENTIAL INJURIES: FRACTURES




## POTENTIAL INJURIES: JOINTS

- T_____ E_____
- G_____ E_____
- D_____
- S_____
- T_____ C_____

## TREATMENT OF JOINT/MUSCULAR INJURIES

- R_____
- I_____
- C_____
- E_____