



WN7
FITNESS

Information Pack



WN7
FITNESS

This pack has been designed to give all of our participants an insight into our Aim, Intent and Reason Why understanding our bodies, the Centre's Equipment and Instructor's techniques is vital to reaching your goals together.

Contents

Unit 1: The circulatory system.

Unit 2: The Skeletal system.

Unit 3: The Muscular system.

Unit 4: Warm Up, Stretching & Cool Down.

Unit 5: Cardio, Bodyweight, Free Weight & Resistance Machine Exercises.

**WHEN YOU FEEL
LIKE QUITTING..
REMEMBER WHY
YOU STARTED.**

Unit 1: The circulatory system.

Once oxygen has been inhaled and has diffused into the blood, it has to be moved around your body for use by the cells, tissues, and organs. This is the job of the circulatory system.

The Blood

Red blood cells (Erythrocytes)

A single drop of blood contains between 240-270 million RBCs so it's safe to say they are pretty prolific. RBCs contain a protein called hemoglobin (Hb) which carries oxygen and carbon dioxide around the circulatory system.

RBCs are produced in the red bone marrow and are pigmented which is what gives blood its characteristic red colour. RBCs make up approximately 40% of total blood volume.

A sound diet containing adequate iron ensures that there are plenty of RBCs - too few can result in anemia which is characterised by fatigue and poor exercise performance.

White blood cells (Leukocytes)

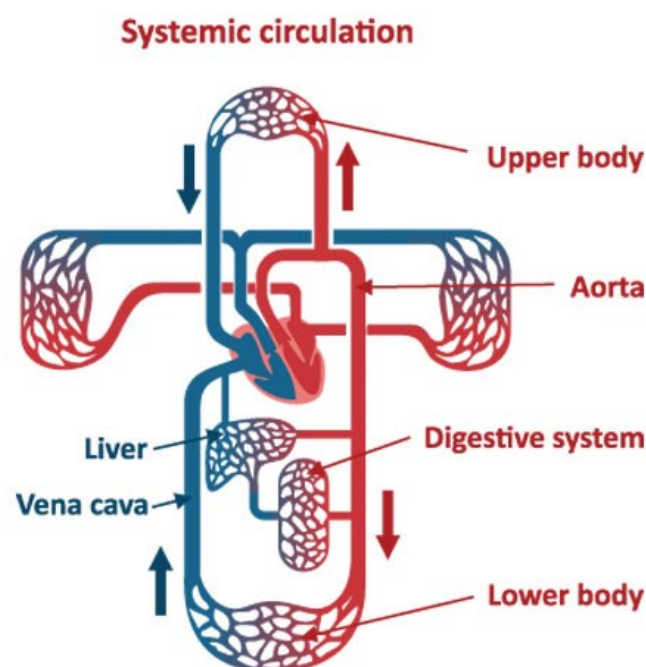
WBCs are clear and contain no hemoglobin. There are fewer of them, but they too are produced in red bone marrow. WBCs are the cells that fight infection and as infections come in various shapes and sizes, so do WBCs.

Platelets (Thrombocytes)

Platelets are responsible for stopping blood loss and are part of the clotting process. If you cut or otherwise injure yourself, platelets form "plugs" to stop your precious blood escaping. Some medications and diseases can inhibit platelet formation, in particular hemophilia and anti-coagulants such as warfarin.

Plasma

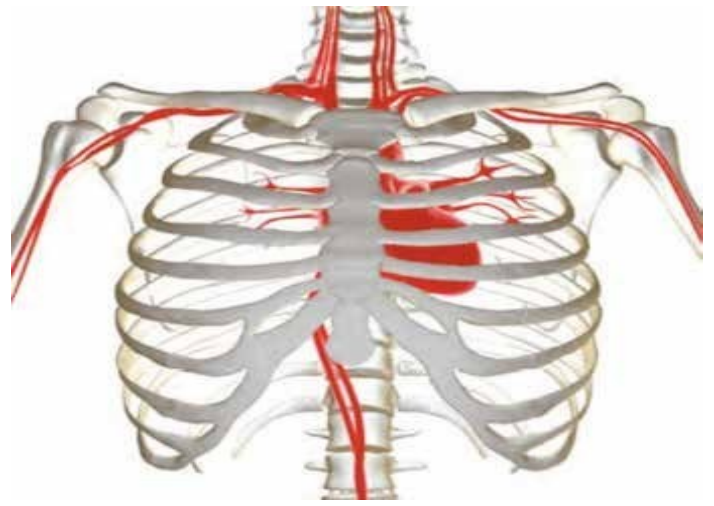
Plasma is the carrier medium in which all the other blood cells are supported and transported. It also contains proteins and other nutrients, electrolytes, gases, enzymes, minerals, vitamins, and metabolic waste products. Plasma is 91.5% water and 8.5% solids and solutes.



The heart

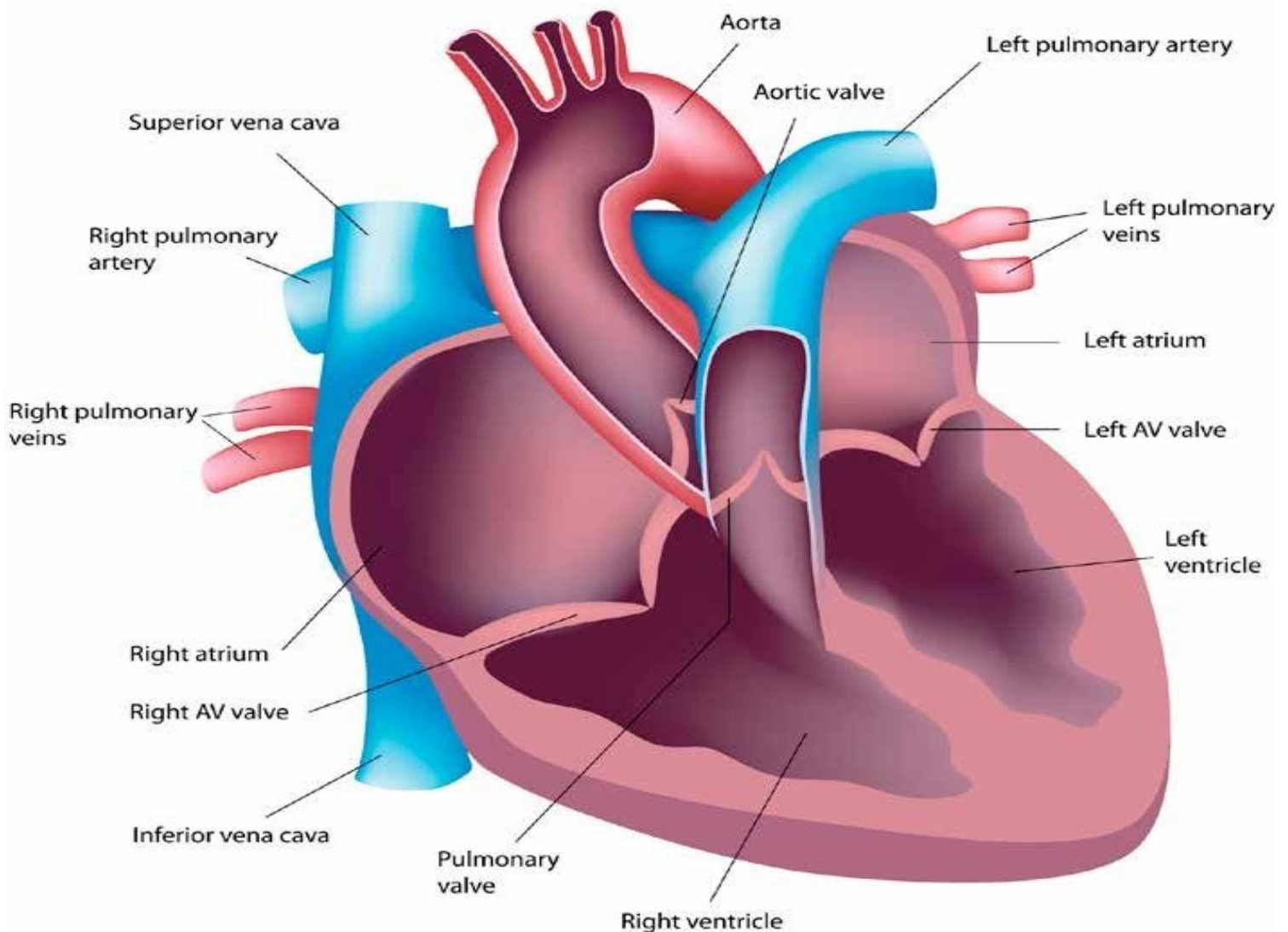
Of all the muscles in the body, the heart is arguably the most important as its sole job is to pump life-giving blood and therefore oxygen around your body.

The heart is divided into two sides - left and right. Each side functions independently of the other and has a different job. The left-hand side of the heart receives and pumps out oxygenated blood while the right-hand side receives and pumps out de-oxygenated blood.



Heart control and rhythm

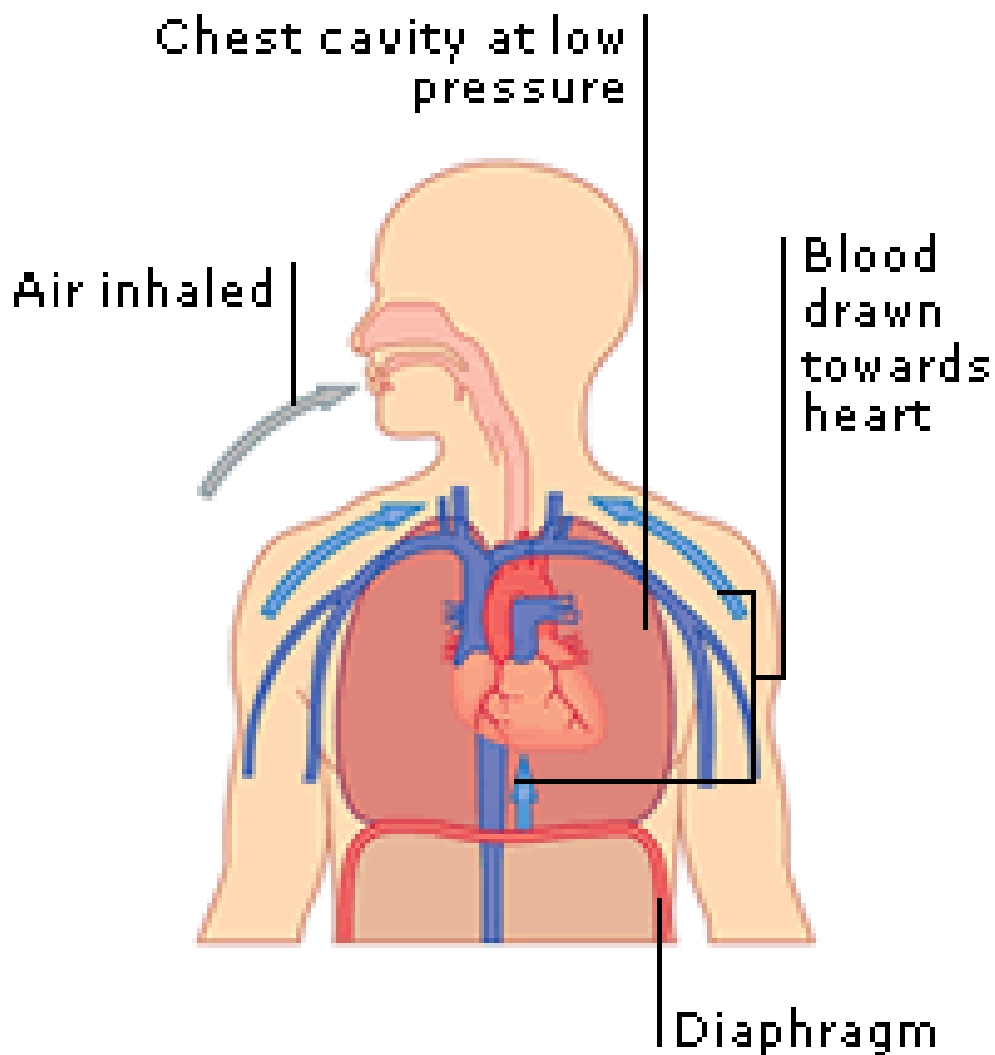
The average resting heart rate is 72 beats per minute (bpm) although an exercising heart can beat over 200 times per minute. A resting heart rate above 72 bpm is called tachycardia while a resting heart rate of 60 bpm or less is called bradycardia. Low resting heart rates are generally seen as an indicator of good circulatory fitness, but this is not always the case and unexpected low resting heart rate readings should be investigated.



Venous return

The flow of blood back to the heart via veins (often against gravity) is called venous return. The pressure in the veins is relatively low and so several mechanisms combine to ensure that blood circulates in a timely fashion...

- **Peristalsis** - the smooth muscular walls of the veins contract to push blood upward and against gravity
- **Skeletal muscle pump** - as skeletal muscles contract, they push against the walls of the veins which in turn pushes the blood through them
- **One-way valves** - to prevent the back flow of blood and aid venous return, veins have valves which prevent blood from flowing the wrong way or from "pooling" in one area
- **Right atrium** - as the right atrium refills, it creates a slight vacuum effect and pulls blood into it
- **Diaphragm** - as it relaxes and returns to its slightly domed position, the diaphragm creates a vacuum in the abdominal cavity which helps draw blood upward
- **Gravity** - blood from above the heart flows downward to the right atrium via the superior vena cava and is aided by gravity.



Effects of exercise on blood pressure - short term

As cardiac output increases with exercise, most forms of exercise will cause systolic blood pressure to increase. This response is linear and an increase in exercise intensity will cause a similar increase in blood pressure. This is not normally of any concern for healthy individuals as blood pressure should return to normal once cardiac output returns to normal. Cardiac output has the greatest effect on systolic blood pressure.


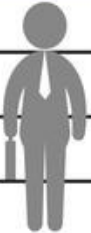

Diastolic blood pressure normally remains relatively unchanged or may even fall slightly when performing low to moderate intensity aerobic exercise. However, heavy weight training and especially isometric contractions or where the breath is held to increase intra-abdominal pressure using the Valsalva maneuver (exhaling against a closed epiglottis) can increase diastolic blood pressure in the short term. Again, in healthy individuals, blood pressure should normalise on cessation of exercise.

If an exerciser is hypertensive, care should be taken not to exasperate their health issues by straining so hard that diastolic blood pressure rises excessively. This means that hypertensive exercisers should avoid holding their breath and only exercise to form failure. It is also recommended that hypertensive follow a circuit weight training program rather than use the more traditional multi-set system and avoid overhead and declined exercises.

Effects of exercise on blood pressure - long term

Low to moderate intensity aerobic exercise has been shown to have a positive effect of cardiovascular health and can help normalise blood pressure in the long term. Regular aerobic exercise can lower systolic and diastolic blood pressure.

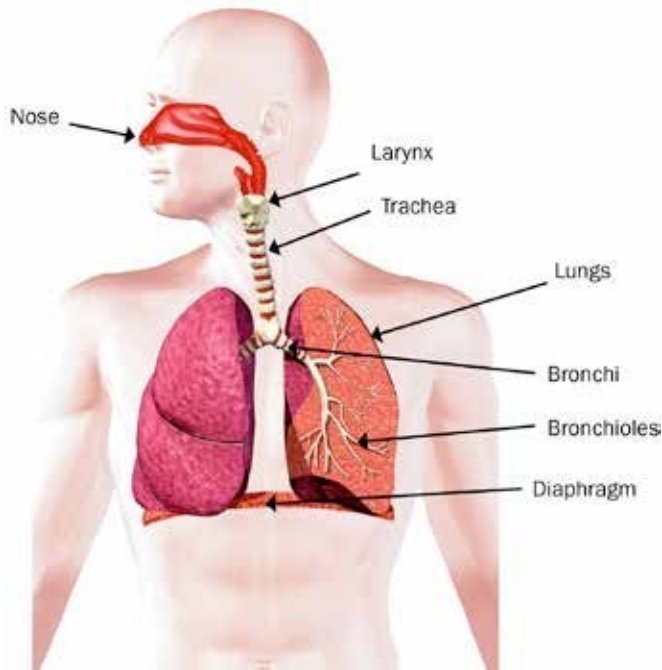
BLOOD PRESSURE CHART

	Age	Min	Normal	Max
	1 to 12 months	75 / 50	90 / 60	100 / 75
	1 to 5 years	80 / 55	95 / 65	110 / 79
	6 to 13 years	90 / 60	105 / 70	115 / 80
	14 to 19 years	105 / 73	117 / 77	120 / 81
	20 to 24 years	108 / 75	120 / 79	132 / 83
	25 to 29 years	109 / 76	121 / 80	133 / 84
	30 to 34 years	110 / 77	122 / 81	134 / 85
	35 to 39 years	111 / 78	123 / 82	135 / 86
	40 to 44 years	112 / 79	125 / 83	137 / 87
	45 to 49 years	115 / 80	127 / 84	139 / 88
	50 to 54 years	116 / 81	129 / 85	142 / 89
	55 to 59 years	118 / 82	131 / 86	144 / 90
	60 to 64 years	121 / 83	134 / 87	147 / 91

The respiratory system

The respiratory system is responsible for taking oxygen into the body and removing the waste product of aerobic respiration - carbon dioxide, and while you have limited control over breathing, i.e., you can choose to hold your breath, ultimately breathing is controlled by your autonomic or involuntary nervous system.

Anatomy of the respiratory system



Nose or Mouth

Pharynx (Throat)

Larynx (Voice Box)

Trachea

Primary Bronchi

Bronchioles

Alveoli

Capillaries

Carbon dioxide exits the body through the same structures but in reverse.

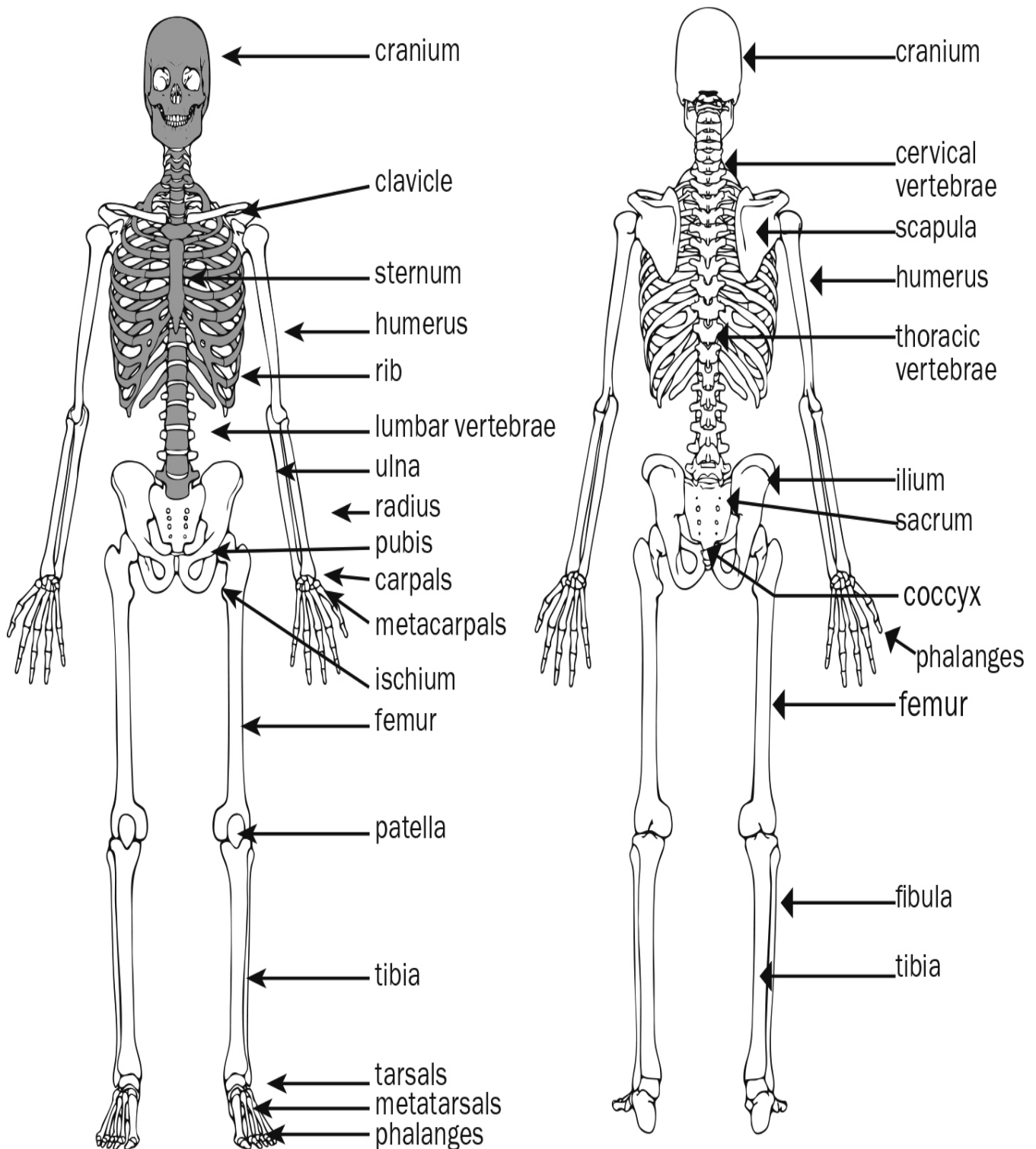
Unit 2: The Skeletal System

The skeletal system consists of bone, cartilage, and ligaments.

Bone

Bone is calcified connective tissue that forms most of the adult skeleton. The skeleton consists of approximately 206 bones.

Anterior View of Skeleton & Posterior View of Skeleton:



Stages of Bone Growth

Fetal stage

In the fetus, most of the skeleton is made up of cartilage: a tough, flexible connective tissue containing no minerals or salts. As the fetus grows, osteoblasts and osteoclasts slowly replace cartilage cells and ossification begins. Many of the bones have been at least partly formed (ossified) by the time we are born.

Birth to adulthood

In long bones, the growth and elongation (lengthening) continue from birth through adolescence. Bone lengthening is achieved through the activity of two cartilage plates (called epiphyseal plates) located between the shaft (the diaphysis) and the heads (epiphyses) of the bones. The epiphyseal plates expand, forming new cells and enabling the diaphysis to lengthen. The length of the diaphysis increases at both ends and the heads of the bone move progressively apart. As growth continues, the thickness of the epiphyseal plates gradually decreases, and the bone lengthening process ends. Different bones stop lengthening at different ages, but ossification is fully complete between the ages of 18 and 30. During this lengthening period, the stresses of physical activity result in the strengthening of bone tissue. Bone thickness and strength must be continually maintained. Old bone must be replaced by new bone to maintain strength and mass.

Adulthood to later life

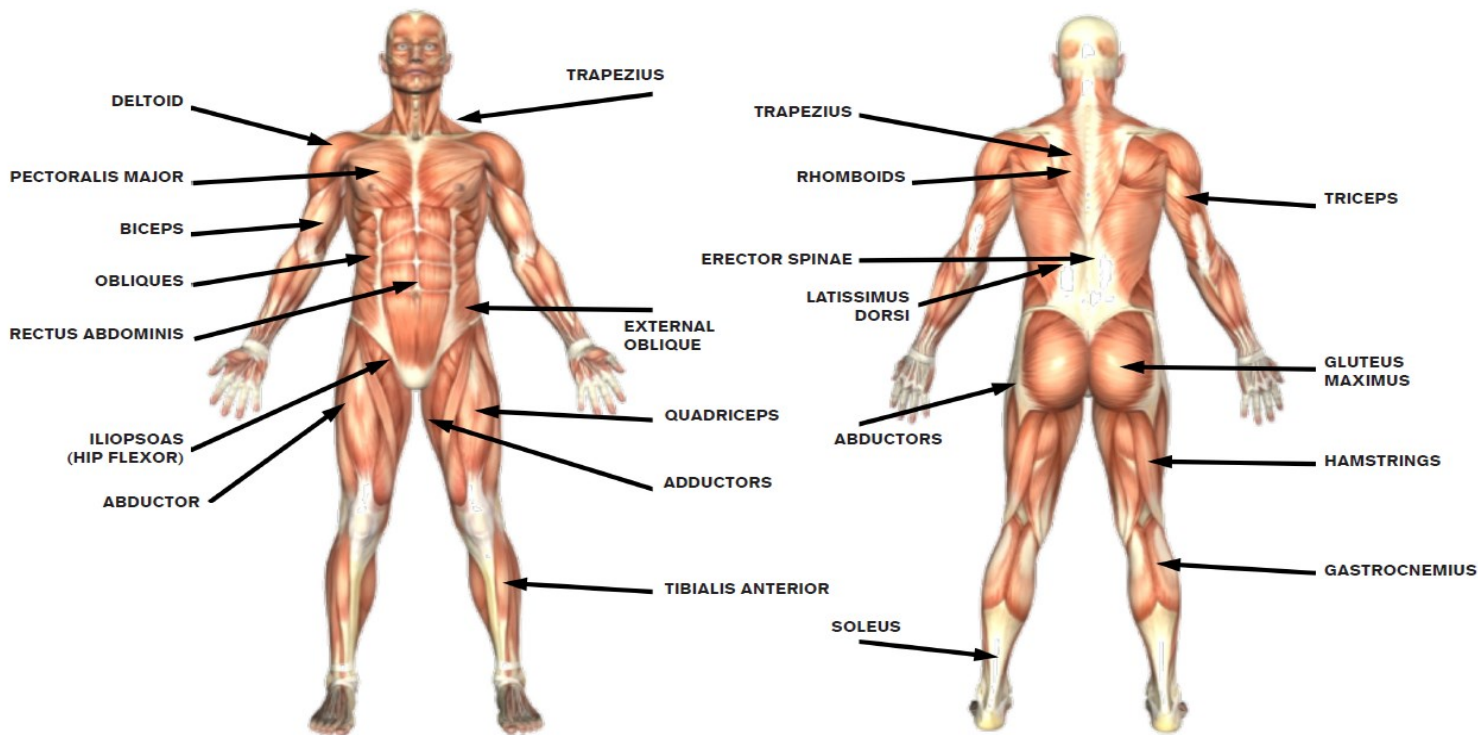
Calcium is progressively lost from the bones as the skeleton ages; this happens earlier in women. Loss of calcium and bone mass can lead to osteoporosis. Osteoporosis increases the risk of fractures and is responsible for loss of height and changes in posture (hunched back) in senior years.

Short-term, immediate effects (Acute Changes)	Long-term benefits (Chronic Changes)
Increased secretion of synovial fluid in joints, which reduces wear-and-tear Increase in blood flow and nutrients to bones and joints Muscles pull on bones to increase ROM	Increased bone density and bone strength Increased joint stability due to stronger ligaments and tendons Improved posture Improved cartilage health Increased ROM, leading to improved flexibility Reduced risk of osteoporosis



Unit 3: The Muscular System.

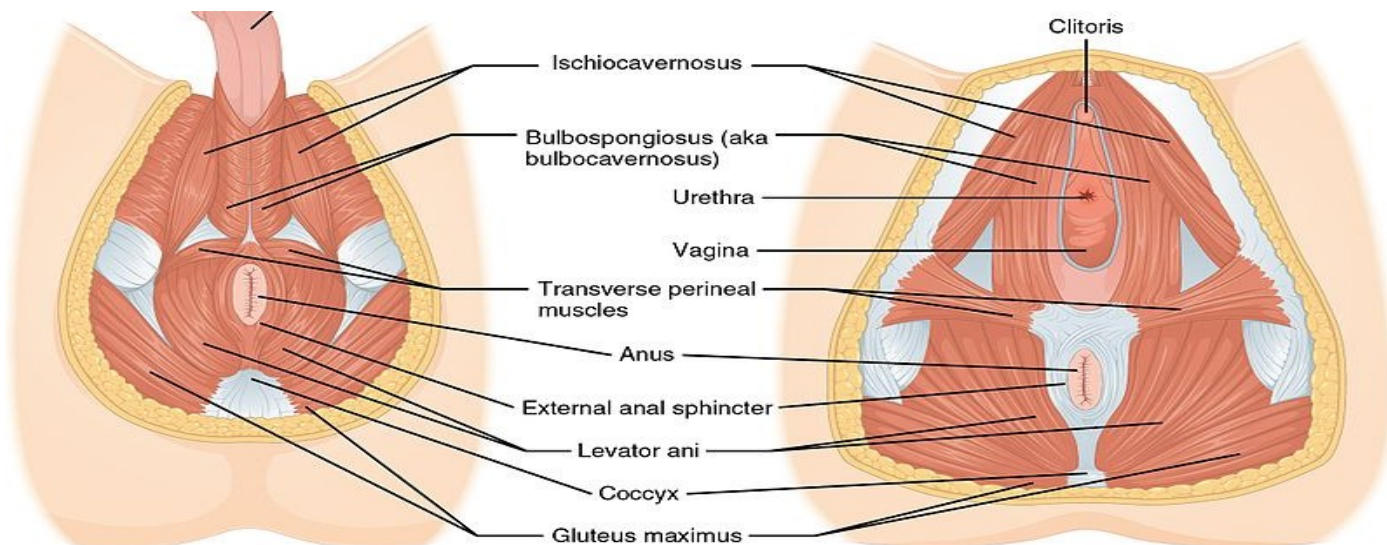
Muscles have the ability to contract, producing movement in the body or maintaining the position of parts of the body.



Pelvic Floor Muscles

Also known as the pelvic diaphragm, these muscles span the area underneath the pelvis along with their connective and surrounding tissues. They form a sling like structure from the pubis at the front of the pelvis towards the coccyx at the base of the spine. The structure is pierced by a narrow gap that transmits the urethra, vagina, and anal canal.

The pelvic floor muscles play an important role in providing support for pelvic organs such as the bladder, in maintaining continence, and also aid in the birthing process. They can respond to training in the same way as other skeletal muscle and can play a vital role in health and wellbeing.

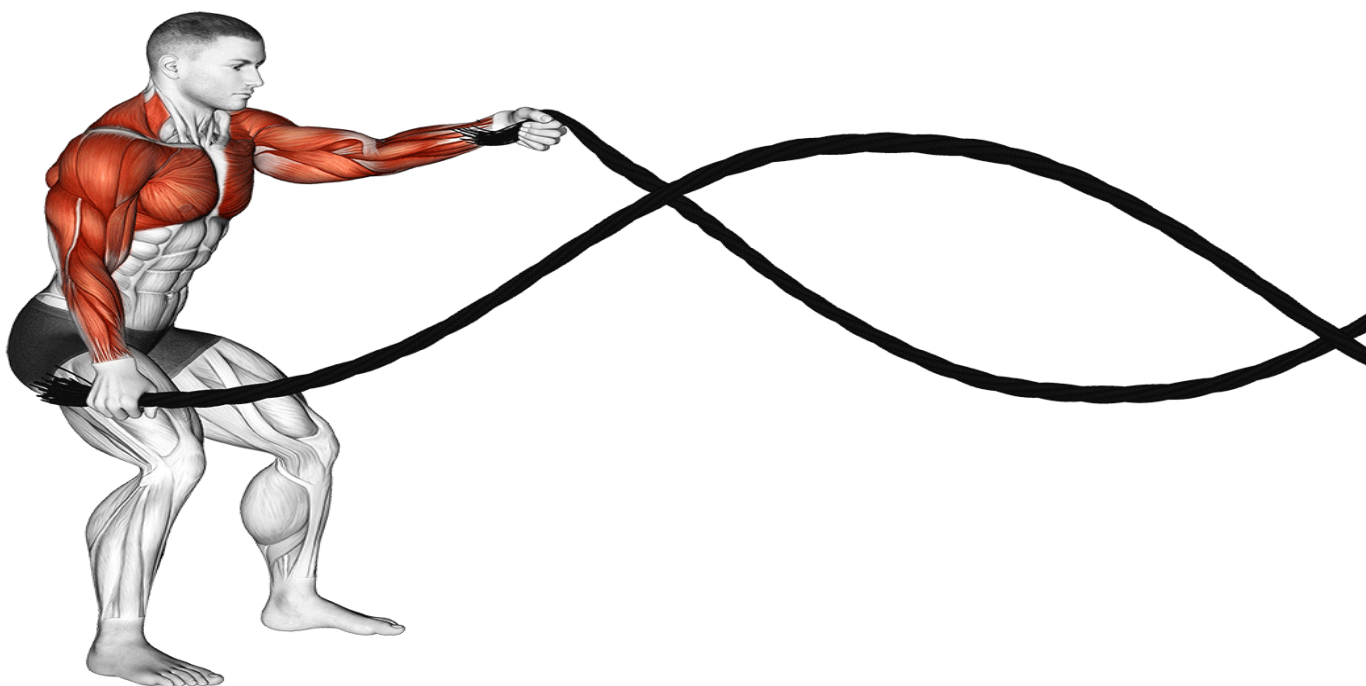


Male perineal muscles: inferior view

Female perineal muscles: inferior view

Muscle Actions

Muscle	Location	Origin (Start)	Insertion (End)	Actions
Deltoids	Shoulder	Clavicle and upper scapula	Upper humerus	Abduction, flexion and extension, horizontal flexion and extension and internal and external rotation of the shoulder joint
Biceps Brachii	Front of the upper arm	Anterior surface of the scapula	Upper radius	Flexion of the elbow and supination of the forearm
Triceps Brachii	Back of the upper arm	Posterior upper humerus and the scapula	Upper ulna	Extension of the elbow
Latissimus Dorsi	Sides of the back	Lower seven thoracic vertebrae, inferior angle of the scapula, thoracolumbar fascia and the iliac crest	Anterior upper humerus	Adduction, extension and internal rotation of the shoulder joint
Trapezius	Upper back	Base of skull, cervical and thoracic vertebrae	Lateral clavicle and upper surface of the scapula	Elevation, retraction and depression of the shoulder girdle; extension, lateral flexion and rotation of the neck
Rhomboids	Mid-back	Upper thoracic vertebrae	Scapula	Retraction and elevation of the scapula



Pectoralis major	Chest	Medial clavicle and sternum	Upper humerus	Flexion, horizontal flexion, adduction and internal rotation of the shoulder joint
Erector Spinae	Either side of spine	Sacrum, ilium, ribs and vertebrae	Ribs, vertebrae and base of the skull	Extension and lateral flexion of the spine
Rectus Abdominis	Along the centre of the abdomen	Pubis	Sternum	Flexion and lateral flexion of the spine and tilting the pelvis posteriorly
Transversus Abdominis	Abdomen	Iliac crest, thoracolumbar fascia and lower six ribs	Pubis and fascial connection to the linea alba	Compressing and supporting the abdominal contents. Deep stabiliser of the spine
Hip Flexors	Through the pelvis and onto the femur	Iliac fossa and all lumbar vertebrae	Femur	Flexion and external rotation of the hip
Gluteus Maximus	Bottom - buttocks	Coccyx, sacrum and iliac crest	Femur	Extension, external rotation and abduction of the hip
Abductors	Outside of the upper thigh/hip	Outer surface of the ilium	Femur and Tibia	Abduction of the hip
Adductors	Inner thigh	The pubis and ischium	Femur	Adduction and internal rotation of the hip
Quadriceps	Front of the thigh	Ilium and Femur	Anterior, upper tibia via the patella	Flexion of the hip and extension of the knee
Hamstrings	Back of the thigh	Ischium and posterior surface of the femur	Tibia and Fibula	Extension of the hip, flexion of the knee and tilting the pelvis posteriorly
Gastrocnemius	Back of lower leg	Femur	Heel bone (Calcaneus)	Plantarflexion of the ankle and flexion of the knee



Soleus	Back of lower leg beneath gastrocnemius	Tibia	Heel bone (Calcaneus)	Plantarflexion of the ankle
Tibialis Anterior	Front of the lower leg	Tibia	Tarsal and metatarsal	Dorsiflexion and inversion of the ankle

Pre- and Post-natal Women

During pregnancy a hormone called relaxin is released which softens the cervix and the ligaments. This allows the body to change shape throughout pregnancy and allows the joints of the pelvis to stretch during delivery. The joints of the body are potentially vulnerable and should not be unduly stressed while exercising. Relaxin can be present in the body for some time after it stops being produced which means that no definitive guidelines can be given regarding exercise prescription.

Expectant mothers wishing to exercise should be carefully screened in order to assess the appropriateness of exercise. Any doubts should be referred to their GP before exercise can begin. Exercises should be given to strengthen the pelvic floor muscles which are placed under a lot of stress during pregnancy and can become weakened and stretched as early as the first trimester.

Post-birth, women who wish to return to exercise need to consider how straightforward the labour was. Those who did regular exercise throughout pregnancy and had a complication free delivery can be expected to return to exercise fairly quickly.

Guidelines of six weeks before resuming full daily activities are being replaced with a more individual approach. Exercise can begin when there is a feeling that 'you are ready' but if in any doubt, a consultation with the health care provider will help this decision making process. Exercise intensity should build gradually with pelvic floor exercises and low impact aerobic activity such as walking. Further exercise should be postponed until after a post-natal check at between six and eight weeks after the birth.

Unit 4: Warm Up, Stretches & Cool Down.

Safe and Effective Warm up and cool down

Warm ups are designed to make you warm and also make the transition from inactive to active as smooth and seamless as possible. A good warm up should prepare your joints, muscles, and neuromuscular system for the workout that follows.

A good warm up will:

- Raise your heart rate
- Increase your body temperature
- Mobilise your major joints
- Stretch your muscles in an appropriate way

Warming up has the following benefits:

- Increased core temperature leading to improved vasodilation and better delivery of oxygen to working muscles
- Warmer muscles that will contract and relax more readily
- Metabolic processes in the muscles happen more rapidly and efficiently
- Muscle viscosity is reduced and so movement is smoother and more efficient
- Muscles are able to exert more force after an appropriate warm up because of increased neuromuscular facilitation
- Lactic acid production is reduced after a slow and gradual warm up
- Nerve impulses travel faster, reaction times decrease, balance, coordination and general nervous system function improves
- Improved cardiovascular response to strenuous exercise due to increased vasodilation
- Joints are lubricated with synovial fluid resulting in increased range of movement and reduced wear and tear
- Connective tissue and muscles becomes more flexible
- Mental and physical rehearsal effect

Types of warm up

There are three main types of warm up:

Active general warm ups - general warm ups are best used before general workouts and involve activities such as jogging and/or light calisthenics. They affect both cardiovascular and neurological systems and are more effective than passive warm ups.

Active specific warm ups - specific warm ups involve using movement patterns that are very similar or even identical to those of the coming workout but with reduced intensity. For example, doing several light but progressively heavier sets of deadlifts before a powerlifting workout. Specific warm ups also provide an opportunity to practice the skills that will be used in the coming workout; the more intense or skillful the workout, the more important specific warm ups become.

Dynamic stretching - aims to move limbs to lengthen muscles to the end of their range of motion under control. There is no bouncing or jerking, which differentiates this method from ballistic stretching. Alternative dynamic stretching techniques may involve mimicking the movements to be performed in the activity or sport and can act as a kind of rehearsal during the warm-up. Around 8–10 repetitions of each movement are performed under control, gradually taking the stretch further to increase the range of motion.

Cool downs

Cool downs help return the body to its pre-exercise state and just as a warm up should be gradual, so too should a cool down. A sudden halt to physical activity can leave a client sore and suffering from DOMS and could cause blood pooling.

The objectives of the cool down are:

- Gradually decrease pulse rate
- Decrease body temperature
- Stretch muscles in the appropriate way

Cool downs generally involve a short period of aerobic exercise where intensity is gradually decreased over several minutes. This facilitates venous return and prevents blood pooling.

Stretch and flexibility:

At the end of an exercise session, it is important to stretch all muscles that have been worked. This is to help reduce tension return and maintain normal ROM in muscles and take the opportunity to develop tight muscles and improve flexibility.

Static maintenance stretches

Static maintenance stretches take the muscle to the end of its normal range (to a mild point of tension) and hold it there without bouncing; they are short stretches held for 10–15 seconds and used to maintain the normal length of the muscle.

Static developmental stretches

Static developmental stretches are used to develop flexibility and increase ROM at a joint.

Guidelines for developmental stretching:

- Take the stretch to the point of mild tension, maintaining good alignment and posture.
- Hold for 10–15 seconds until the tension within the muscle has reduced.
- Relax and passively increase the ROM of the stretch until tension is felt again.
- Hold for 10–15 seconds until the tension within the muscle has reduced.
- Increase the ROM of the stretch until tension is felt again.
- Hold until the tension reduces, then slowly return the limb to its normal position.
- Repeat the stretch if desired.

COOL DOWN AFTER WORKOUT



Rating of perceived exertion (RPE)

The rating of perceived exertion scale (RPE for short) was developed by Scandinavian physiologist Gunnar Borg and is sometimes referred to as Borg's scale. It is designed to identify exercise intensity based on symptoms experienced by the exerciser or, in simple terms, how they feel.

With practice, an exerciser should be able estimate their level of exertion very accurately.

RPE SCALE	RATE OF PRECEIVED EXERTION
10 /	MAX EFFORT ACTIVITY Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time
9 /	VERY HARD ACTIVITY Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words
7-8 /	VIGOROUS ACTIVITY Borderline uncomfortable. Short of breath, can speak a sentence
4-6 /	MODERATE ACTIVITY Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging
2-3 /	LIGHT ACTIVITY Feels like you can maintain for hours. Easy to breathe and carry a conversation
1 /	VERY LIGHT ACTIVITY Hardly any exertion, but more than sleeping, watching TV, etc



WN7
FITNESS

EXERCISE ARCHIVE

Cardiovascular machines

Exercise name: Exercise Bike

Primary muscles used: Lower body

Teaching points: Set seat to hip height. Keep legs straight with soft knees. Sit tall and face forwards. Pedal without rocking from side-to-side. Keep upper body relaxed

Alternative options: Use a recumbent bike instead or another lower body CV Machine

Exercise name: Treadmill

Primary muscles used: Lower body

Teaching points: Use a heel/toe action. Look directly forward. Stand in the middle of the belt. Avoid holding on while running. Keep torso upright. Keep upper body relaxed

Alternative options: Walk, jog, run or set the machine at an incline or use another lower body CV Machine

Exercise name: Rowing Machine

Primary muscles used: Full body

Teaching points: Sit up tall. Drive off with the legs and then pull with the arm. Avoid slouching. Pull handle into abdomen. Do not twist chain. Use an overhand grip

Alternative options: use another CV Machine

Exercise name: Cross Trainer

Primary muscles used: Full body

Teaching points: Place whole foot on footplates. Keep heels down. Keep torso upright. Look straight ahead. Keep shoulders down. Do not rock from side to side

Alternative options: Use with or without arm action

Exercise name: Stepper

Primary muscles used: Lower body

Teaching points: Place whole foot on footplates. Maintain an upright torso. Keep upper body relaxed. Take moderate to large steps

Alternative options: Use Cross Trainer or Treadmill instead



Resistance Machine Exercises - Upper Body

Exercise name: Seated Chest Press



Primary muscles used: Pectoralis major, deltoids, triceps brachii

Alternative options: Perform barbell or dumbbell bench press or press-ups instead.

Exercise name: Chest Fly



Primary muscles used: Pectoralis major, deltoids

Alternative options: Perform dumbbell flyes or cable crossovers instead.

Exercise name: Seated Row



Primary muscles used: Latissimus dorsi, middle trapezius, rhomboids, posterior deltoids, biceps brachii

Alternative options: Perform barbell or one-arm dumbbell rows instead.

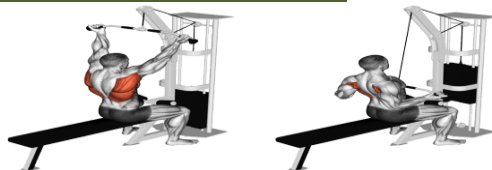
Exercise name: Seated Shoulder Press



Primary muscles used: Deltoids, triceps brachii

Alternative options: Perform barbell or dumbbell shoulders presses instead.

Exercise name: Lat Pull Down



Primary muscles used: Latissimus dorsi, biceps brachii

Alternative options: Perform chin-ups or pull-ups or bent over barbell/single arm dumbbell rows instead.

Exercise name: Triceps Push Down



Primary muscles used: Triceps brachii

Alternative options: Use a rope handle, V-bar or straight bar as preferred.

Exercise name: Biceps Cable Curl



Primary muscles used: Biceps brachii

Alternative options: Do barbell or dumbbell curls instead.



WN7
FITNESS

Resistance Machine Exercises - Lower Body

Exercise name: Leg Extension



Primary muscles used: Quadriceps
Alternative options: This exercise can be performed one leg at a time.

Exercise name: Hip Abduction



Primary muscles used: Abductors
Alternative options: This exercise can be performed by doing side leg raises.

Exercise name: Leg Curl



Primary muscles used: Hamstrings.
Alternative options: This exercise can be performed one leg at a time. There are three types of leg curl machines; seated, lying, and standing.

Exercise name: Hip Adduction



Primary muscles used: Adductors
Alternative options: This exercise can be performed using a total hip machine

Exercise name: Seated Calf Raise



Primary muscles used: Soleus, gastrocnemius
Alternative options: Perform with a barbell resting on the knees if no machine is available.

Exercise name: Leg Press



Primary muscles used: Quadriceps, hamstrings, gluteus maximus
Alternative options: Squats, lunges or step ups can be performed instead



WN7
FITNESS

Free Weight Exercises - Upper Body

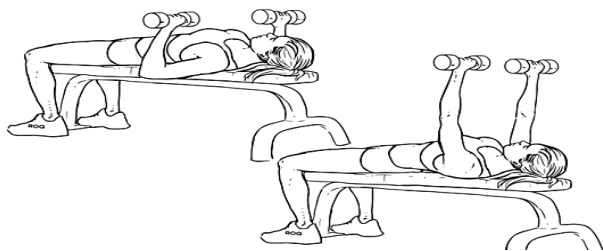
Exercise name: Bench Press



Primary muscles used: Pectoralis major, triceps brachii, deltoids

Alternative options: This exercise can be performed using dumbbells.

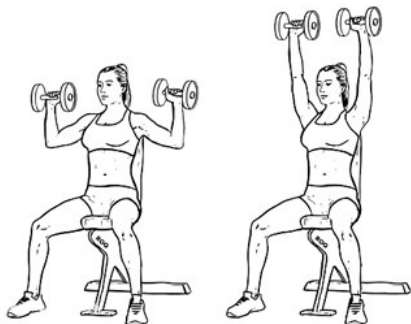
Exercise name: Dumbbell Flies



Primary muscles used: Pectoralis major, deltoids

Alternative options: This exercise can be performed using an incline or decline bench.

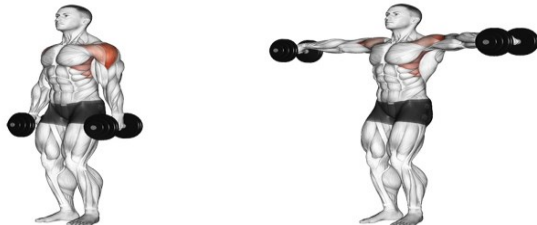
Exercise name: Dumbbell Shoulder Press



Primary muscles used: Deltoids, triceps brachii

Alternative options: Can be performed seated or standing or using a barbell for variation

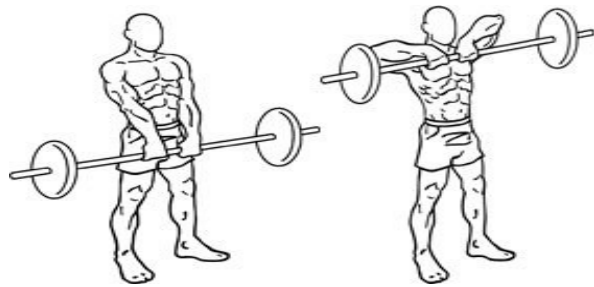
Exercise name: Dumbbell Lateral Raise



Primary muscles used: Deltoids

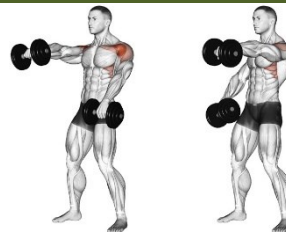
Alternative options: Exercise can be performed seated or standing as preferred

Exercise name: Barbell Upright Row



Primary muscles used: Deltoids, upper trapezius, biceps
Alternative options: This exercise can be performed using dumbbells.

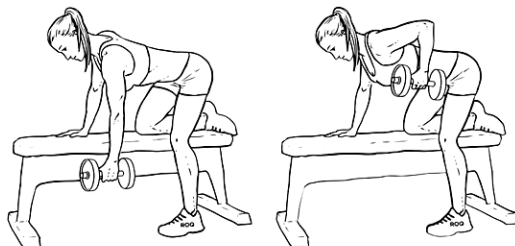
Exercise name: Dumbbell Front Raise



Primary muscles used: Deltoids

Alternative options: Can be performed raising both arms together.

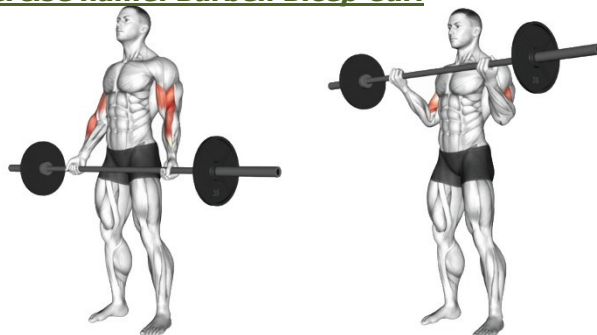
Exercise name: Single-Arm Dumbbell Row



Primary muscles used: Latissimus dorsi, biceps brachii, posterior deltoid, trapezius

Alternative options: Can be performed with one hand and one knee on a bench or with one hand on the bench and both feet on the floor.

Exercise name: Barbell Bicep Curl



Primary muscles used: Biceps brachii

Alternative options: This exercise can be performed using dumbbells.

Free Weight Exercises - Lower Body

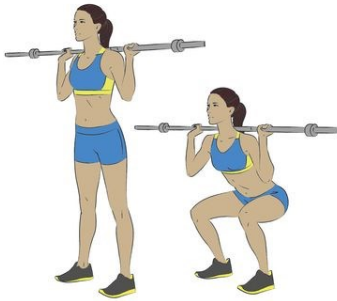
Exercise name: Romanian Deadlift



Primary muscles used: Hamstrings, gluteus maximus, erector spinae

Alternative options: Can be performed with barbell resting across upper back, or with dumbbells

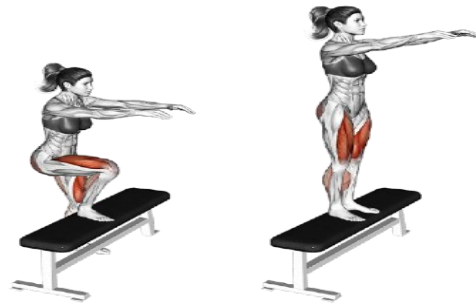
Exercise name: Barbell Squats



Primary muscles used: Quadriceps, hamstrings, gluteus maximus

Alternative options: Squat with dumbbells, leg press machine.

Exercise name: Step-Ups



Primary muscles used: Quadriceps, hamstrings, gluteus maximus

Alternative options: Use dumbbells or a barbell as preferred, adjust step height to suit fitness level and balance.

Exercise name: Lunges



Primary muscles used: Quadriceps, hamstrings, gluteus maximus

Alternative options: Perform with dumbbells or a barbell



WN7
FITNESS

Bodyweight Exercises - Upper Body

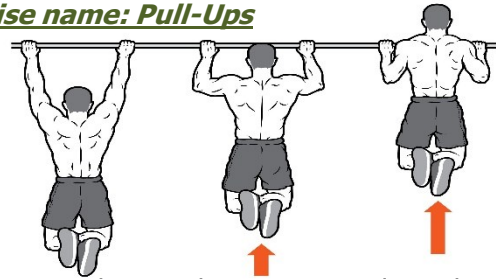
Exercise name: Press-Ups



Primary muscles used: Pectoralis major, deltoids, triceps brachii.

Alternative options: Perform on bent knees to reduce exercise difficulty.

Exercise name: Pull-Ups



Primary muscles used: Latissimus dorsi, biceps brachii.

Alternative options: Use an assisted chin-up machine or perform lat pull downs instead.

Bodyweight Exercises - Lower Body And Core

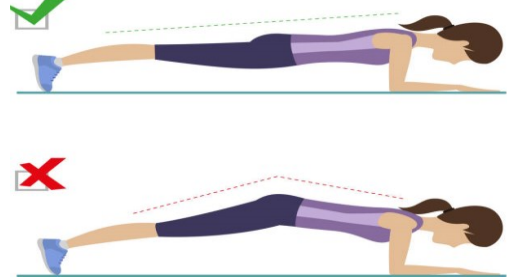
Exercise name: Squats



Primary muscles used: Quadriceps, hamstrings, gluteus maximus

Alternative options: Squat with dumbbells, kettlebells, legpress machine or barbell.

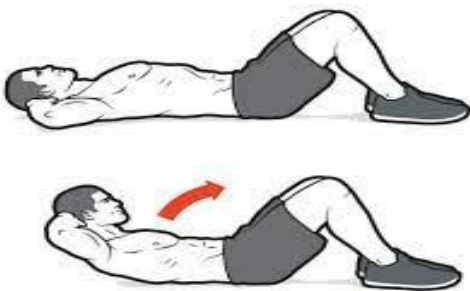
Exercise name: Planks



Primary muscles used: Rectus abdominus

Alternative options: Rest on bent knees for a less demanding exercise. Extend arms or elevate feet to make the exercise more demanding.

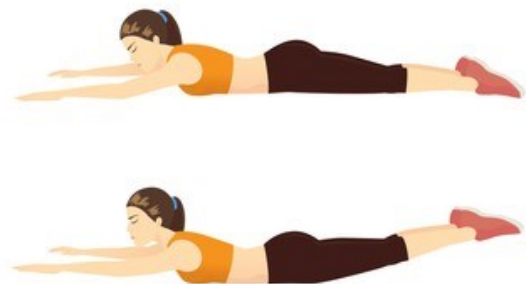
Exercise name: Abdominal Crunches



Primary muscles used: Rectus abdominus.

Alternative options: A seated crunch curl can be used instead.

Exercise name: Back Extensions



Primary muscles used: Erector spinae

Alternative options: A back extension machine can be used instead.

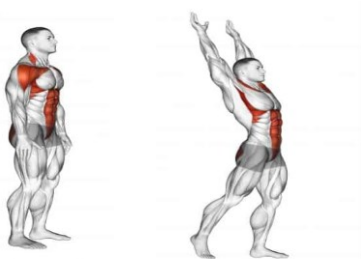
Stretching - Dynamic

Exercise name: Squat to Overhead Reach



Primary muscles used: Quadriceps, hamstrings, gluteus maximus, erector spinae, hip flexors, rectus abdominus, latissimus dorsi.

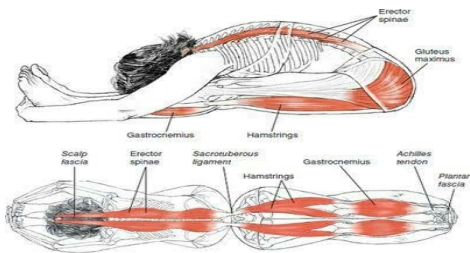
Exercise name: Posterior Step with Overhead Reach



Primary muscles used: Gastrocnemius, soleus, hip flexors, rectus abdominus, pectoralis major, latissimus dorsi

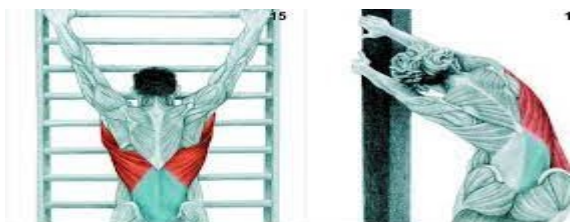
Stretching - Static

Exercise name: Erector Spinae Stretch



Primary muscles used: Erector spinae

Exercise name: Standing Lat Stretch



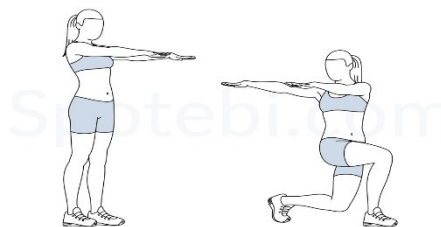
Primary muscles used: Latissimus dorsi.

Exercise name: Squat to Overhead Reach with Twist



Primary muscles used: Quadriceps, hamstrings, gluteus maximus, erector spinae, hip flexors, rectus abdominus, latissimus dorsi, obliques

Exercise name: Lunge with a Twist



Primary muscles used: Quadriceps, hamstrings, gluteus maximus, erector spinae, hip flexors, obliques

Exercise name: Standing Pec Stretch



Primary muscles used: Pectoralis major, anterior deltoids.

Exercise name: Standing Deltoid Stretch



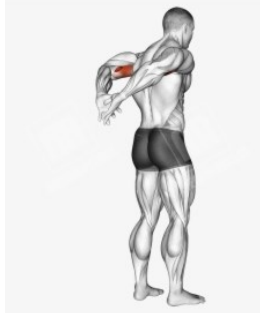
Primary muscles used: Deltoids.

Exercise name: Standing Trapezius and Rhomboid Stretch



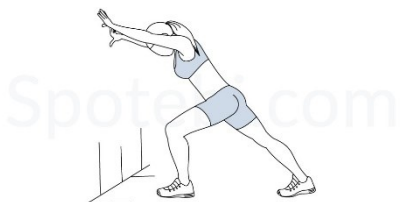
Primary muscles used: Trapezius and rhomboids

Exercise name: Standing Biceps Stretch



Primary muscles used: Biceps, pectoralis major, anterior deltoids

Exercise name: Standing Gastrocnemius/Soleus Stretch



Primary muscles used: Gastrocnemius

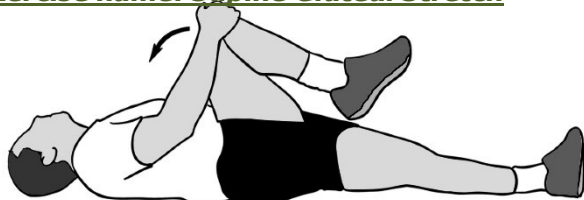
Exercise name: Standing Hamstring Stretch



STANDING HAMSTRING STRETCH

Primary muscles used: Hamstrings

Exercise name: Supine Gluteal Stretch



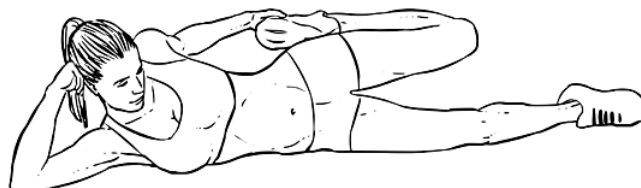
Primary muscles used: Gluteus maximus

Exercise name: Seated adductor stretch



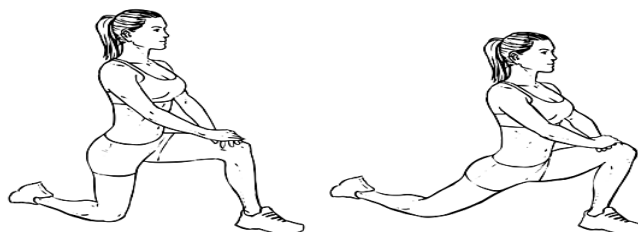
Primary muscles used: Adductors

Exercise name: Lying Quadriceps Stretch



Primary muscles used: Quadriceps

Exercise name: Kneeling Hip Flexor Stretch



Primary muscles used: Hip flexors, rectus femoris

Static maintenance stretches

Take the stretch to a point of mild tension and hold it there without bouncing. Hold for 10-15 seconds.

Static developmental stretches

Take the stretch to a point of mild tension. Hold for 10-15 seconds until the tension within the muscle has reduced. Relax and passively increase the ROM of the stretch until tension is felt again. Hold for a further 10-15 seconds until the tension within the muscle has reduced. Hold until the tension reduces, then slowly return the limb to its normal position. Repeat the process.



WN7 FITNESS

PERSONAL TRAINING PROFILE





Name: Kyle Parr
Tel: 07856 219352
Social: @kylebparr
<https://www.wn7-outreach.co.uk/Fitness/>

SPECIALIST AREAS

- Youth Mentoring.
- Raising Self-Esteem.
- General Fitness.
- Weight Management.

QUALIFICATIONS




- 1st Aid.
- Recognising Disabilities.
- Working with Young People.
- Licensed Boxer.

Hi, I'm Kyle

I'm a local Champion Boxer who's earned the prestigious Titles of: England International, European Championships Silver Medallist 2017, Four Time National Champion 2015, 2016, 2017 & 2018. Monkstown Box Cup Gold Medallist 2017. 5x Northwest Champion.




PERSONAL TRAINING PROFILE

Name: Dale Boydell
Tel: 07432 889266
Email: Lionheartdale@gmail.com
Social: @Swim.Bike.Run_dale
<https://lionheartdale.wixsite.com/info>

SPECIALIST AREAS

- Post Cancer Treatment Fitness.
- Strength & Conditioning.
- Growth Mindset Strategies.
- General Fitness & Weight Management

QUALIFICATIONS

- L3 Personal Trainer.
- Certified Battle Cancer Coach.
- BSc S&C.
- UKSCA Member 46030.

Hi, I'm Dale

I am an Endurance Coach and Personal Trainer. My *Effective* strategies and environments ensure *Self-Esteem* is *Empowered*, *Personal Goals* are *Championed* and Problems are met head on with *Solutions*.

IF YOU'RE A BEGINNER OR A CHALLENGE CHASER LOOKING FOR ASSISTANCE SCAN THE QR CODE.....

