

## Fitness Training Information

**This information is intended as a guide.**

**Seek advice from a professionally qualified fitness instructor, coach or exercise physiologist to oversee the program and advise you on the stretches and a graduated program designed specifically for you.**

**You should consult with a medical practitioner prior to beginning an exercise routine.**

This fitness information has been provided to assist you in getting ready for testing for the Multi Stage Fitness (shuttle run) and Agility Tests. You should endeavour to increase your fitness with a variety of exercises rather than using the shuttle run as an initial training aid.

### **Warm ups**

Warming up and stretching is essential to prepare the body for physical activity. This increases flexibility, blood flow, nerve impulses, and oxygen delivery to the muscles. The heart, blood vessels, lungs and muscles become ready for more strenuous activity. A good warm up may reduce the potential for injuries.

***Before starting ANY physical activity it is essential to WARM UP!!!***

Practical points on warming up:

- Start with general, gentle aerobic activity
- Continue until lightly sweating and heart rate, breathing rate and body temperature increase (5 -10 mins of activity) and you are unable to carry on a conversation whilst exercising
- Complete specific stretches related to the specific exercise about to be undertaken.

***At the end of any physical exercise it is important to COOL DOWN!!!***

By cooling down it allows the body's physiological systems to revert to their normal state slowly, i.e. heart rate, breathing rate, body temperature. It also prevents the "pooling of blood" in the major muscle groups being used, leading to inadequate return of blood to the heart. Cooling down delays the onset of muscle soreness as a result of lactic acid build up. Lactic Acid levels in the blood decrease more rapidly during *exercise recovery* than during *rest recovery*. A cool down should be a slow walk or jog of approximately 4 - 5 minutes duration. Ensure that you then stretch those muscles directly related to the exercise session undertaken.

### **Cardio-vascular fitness (Aerobic system)**

- For beginners, regular workouts 3-4 times per week or more often if fitness permits, will develop above average fitness.

- For most people the intensity of the training needs to be between 60-80% of their estimated Maximum Heart Rate. For very fit people or athletes, the training heart rate may be closer to 90%.

To work out beats per minute, find your pulse and count how many beats in 15 seconds, 4 x 15 seconds = 1 minute).

Your **Maximum Heart Rate** is predicted by **220 minus your age**. This max heart rate is then multiplied by 0.60 for 60% or 0.80 for 80% to calculate beats per minute (BpM) and gives you your desired "Training" or "Target heart rate".

For example: 32 year old female max heart rate would be

(60%)  $220 - 32 = 188 \times 0.60 = 112$  BpM (Beats per Minute)

(80%)  $220 - 32 = 188 \times 0.80 = 150$  BpM

Whatever the calculation – this is the target intensity for your training. From this gauge you may have to increase your intensity level during that 30 minute period to ensure you are reaching your 60-80% requirement ("Training" or "Target Heart Rate").

- To see improvement in aerobic fitness the training needs to last approximately 20 – 30 minutes in duration. It can be continuous for that period of time, or intermittent, (minimum of 10 minute bouts with 2 minute rest in-between). The duration depends on the intensity, meaning the lower the intensity, the longer the exercise session should last.
- Be aware that as your fitness increases, the heart rate decreases for the same intensity of exercise, therefore to keep the heart rate in the target zone, the exercise intensity must increase.
- Recovery from training is as important as the training you undertake. If incomplete recovery then you are at risk of becoming injured or fatigued.

Suggested exercises:

- Running, combination running & brisk walking, cycling, swimming.
- Skipping rope, steppers, rowers, climbers, bike.

## **Muscular strength and endurance**

- For beginners, it is important to give that group of muscles a day rest in-between weight sessions as this allows the muscles time to repair (one day on, one day off).
- To improve muscular endurance, a light weight is used with up to 15 - 20 repetitions. To improve muscular strength, a heavier weight is used with between 1- 8 repetitions. For a beginner, one set of each exercise is appropriate. For the more advanced person, two or more sets of each exercise can be performed.
- After each set is performed it is important to stretch out the muscles that have been used while they are still warm to avoid injury.
- There are many forms of resistance training – bodyweight, dumbbells, barbells, pin loaded machines, hydraulic equipment and dynabands.
- Leave any abdominal workout till the last exercise. To correctly perform any exercise, abdominal bracing should always be performed to ensure correct posture and prevent injury to lower back. After abdominal exercise, ensure stretching of abdominal area occurs. (This is as important as the exercise itself – shortening of abdominal muscles can lead to lower back or upper leg injuries).

### An example beginner's weight programme:

Warm up Stretches	Bike	(5 mins)
Bench press	1 x 15 reps	
Lat pull down	1 x 15 reps	
Leg press	1 x 20 reps	
Shoulder press	1 x 15 reps	*Repeat another set of weights if time permits*
Seated row	1 x 15 reps	
Step ups	1 x 20 reps	
Ab Crunches	1 x 15 reps	
Lower Back (alt arm/leg)	1 x 15 reps	
Cool down Stretches	Treadmill/walk	(5 mins)

### An example beginners conditioning programme:

Warm up Stretches	Bike	(5 mins) Check your pulse every minute
Bench press	1 x 15 reps	
Step Ups – slow	1 x 20 reps	
Lat pull down	1 x 15 reps	*Alternatively, do a weights circuit, and run in-between each set. Do not do leg weights if running, as this will be your leg workout.
Cycle	(5 - 10 mins)	
Seated row	1 x 15 reps	
Leg press	1 x 20 reps	
Shoulder press	1 x 15 reps	
Rower	(5 - 10 mins)	
Ab Crunches	1 x 15 reps	
Lower back (alt arm/leg)	1 x 15 reps	
Cool down Stretches	Treadmill/walk	(5 mins)

### Example format for training:

Monday	Cardio vascular fitness	Running
Tuesday	Light Weights	(as per programme)
Wednesday	Cardio vascular fitness	Running
Thursday	Light Weights	(as per programme)
Friday	Cardio vascular fitness	Running / Cycle
Saturday	Sporting Activity	(e.g. football, netball, hockey)
Sunday	Rest	

\*\*\*\* **For muscle groups targeted**, it is important to have ONE DAY REST in-between training otherwise the body's muscular and energy systems will become overloaded, you will burn out and injuries will occur\*\*\*\*