

# FOOTBALL TRAINING

Football is played in two main forms, firstly as a 90 minute game with a 15 minute half time rest period, or a more explosive 5 aside game. Being a sport that is constantly on the go, your fitness level and strength plays an important part in your game, however a high skill level on the ball and good knowledge of the game are also essential.

Football is a sport that requires a multitude of athletic abilities, aim to make improvements in the following to improve your game:

- Explosive acceleration and fast sprinting speed.
- Muscular endurance and strength in the lower body.
- Muscular balance and high levels of neuromuscular co-ordination.
- Body awareness and agility, the ability to know where your body is, and be able to move it.
- Discipline to take orders and decisions, as well as putting the team first.
- Good flexibility to avoid injury, football players are prone to poor hamstring flexibility.
- Correct balance between your quadriceps and hamstrings, as well as strength imbalances between your left and right leg.

**Your fitness training should take the following form**

## Speed work

Look at the ply metric circuit to developing explosive power, aim to do this circuit no more than once a week, and certainly not on days before a match, as this type of circuit takes a few days to recover from.

Shuttle sprints, most sprints last for between 6 and 15 meters in a match, so look at this distance for your training. Work your sprints in the following form, standing start, lying flat on your stomach start, running start, sprint forward with run back and then repeat all with a ball. Aim to have a minimum of 3 markers to turn around, not necessarily in a straight line.

## Muscular Endurance

Use this circuit once a week to develop muscular endurance, best performed alongside a skill session or on a day after a match.

DISTANCE	SPEED	DRILL / NOTES
2 X LAPS	LIGHT RUN PACE	WARM UP & STRETCH
3 X LAPS	JOG / RUN / FAST	PACE YOURSELF
3 X 1/2 LAPS	AS ABOVE	DO DRILL WITH FOOTBALL

1 X LAP	RUN PACE	HK - SS - HTB -SS *
4 X 1/2 LAPS	FAST RUN	LEG CIRCUIT AFTER EACH 1/2 LAP
4 X 1/2 LAPS	FAST RUN	AS ABOVE PLUS UPPER BODY CIRCUIT
4 X 1/2 LAPS	FAST RUN	AS ABOVE PLUS ABS CIRCUIT
4 X LAPS	SPRINT / JOG	SPRINT ONE SIDE THEN JOG BACKWARDS *
4 X 1/2 LAPS	FAST AS POSSIBLE	DO DRILL WITH FOOTBALL
5 X LAPS	FAST RUN	LEG CIRCUIT AFTER EACH LAP
2 X LAPS	LIGHT RUN PACE	COOL DOWN & STRETCH

- HK = HIGH KNEE RUNNING SS = SIDE STEPPING HTB = HEEL TO BUM
- AIM TO SPRINT THE WIDTH OF THE PITCH, THEN JOG BACKWARDS ALONG THE LENGTH BEFORE SPRINTING AGAIN. ONCE YOU GET FITTER, YOU CAN THEN SPRINT THE LENGTH AND JOG ON THE WIDTH.

Perform 8-15 of each exercise as fast as possible, remember first time around to perform just the leg circuit, then the leg and upper body and finally all three. Make sure that you do the lap run after each circuit.

LEG CIRCUIT		
		
Two footed squat thrusts - aim for a 12 inch jump.	Walking lunge forward - changing lead leg.	Alternate leg squat thrusts - count reps on 1 leg only.

UPPER BODY CIRCUIT		
		
Wide arm press-up. Take elbows out to your sides.	Normal press ups, aim to keep a straight line through your back.	Close Hand - Aim to keep your thumbs touching each other.

ABDOMINAL CIRCUIT		
		
Normal sit ups, keep your chin off your chest.	Alternate elbows to knees - count reps on one side only.	Alternate hand to foot - count reps one side.

Along with this session you can do straightforward cardiovascular training in the form of running, rowing and stepper's. Aim to build up to doing sessions that last a minimum of 45 minutes either 2-3 times a week. You can also do your weight training after your C.V. workouts, in order to give your body a chance to rest and recover for key matches.

### Strength Training

Read the notes on strength training on the site, concentrate on adjusting your workouts to allow for your body to recover, *avoid training sore muscles*. Train at low intensity's if you are new to weights, working on your legs for power and your arms in order to hold off players.

## LOWER BODY



Seated leg extension machine **Quads**. Keeping your back firmly into machine, place your feet under the foot pad, about shoulder width apart, just above your ankle level.

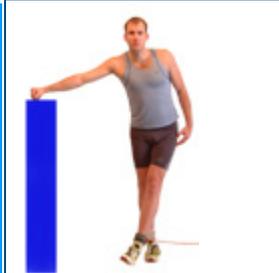
As you develop your leg strength, aim to work for 3 sets of 10 - 12 reps, followed by 1 - 2 sets of 50% weight, using 1 leg for 4 - 8 reps.



**Calf** machine. Most modern gyms will have a calf machine, if not that use either a Smith Machine or Barbell across your shoulders.

Stand straight with the balls of your feet on the platform, with the shoulder weight cushions comfortably placed on your shoulders, - avoid being bent up, or straining to reach the supports.

Lift and lower slowly for 2 - 3 sets of 10 - 12 reps working for a full range.



Cable adductor and abductor pulls, **Inner / Outer Thighs**. Aim for 2 sets of 10 - 12 reps with a suitable weight. Work one leg, then simply turn around to face the other way, in order to work the abductors.

Repeat on the other leg. Count the number of reps that you can do, in order to gauge the difference if any in strength in each leg.



Leg Press **Quadriceps**. There are a number of foot positions you can use to work the different muscles of your quadriceps, you can have your feet close together - wide or shoulder width apart.

Work for 3 sets of 10-12 reps, for first set work with your feet close, then normal and finally wide, with toes pointing outwards.



**Hamstring** Curl Machine. Use a suitable weight and perform smooth reps. Avoid pushing yourself on this exercise, as most people's hamstrings will tend to be tight, and can easily be damaged.

Aim for 2 - 3 sets of 10 - 12 reps, using a light weight for your first set.



**Gluts / Hip Flexor Cable Pull** Connect a foot strap around a leg, just above the ankle joint, and attach this to a low cable pulley.

Aim to keep your legs and back straight throughout the exercise, to help isolate the gluts, holding a secure object for balance.

Work for 2 sets of 10 - 12 reps, on each leg - facing forward (gluts) and rearward (hip flexors).



**Complete Lower Body.** A combination of either front or rear lunges can be performed using a Smith Machine, however always make sure that you perform with a lightweight, enabling your leg muscles to get use to the movement prior to increasing the weight.

Aim for 2 sets of 10 - 15 reps each leg, using a light weight, however aim for a full range of movement.



**Adductor Machine.** Aim to keep your legs and back in contact with the machine at all times. Some machines will have a combination of settings, allowing the legs to be taken wider, avoid taking your legs out too far, especially for beginners.

It may be useful to warm up your muscles with a lightweight prior to your training weight.

Aim for 2 sets Of 10 - 12 reps with a suitable weight.

## UPPER BODY WORKOUT

This session is designed to work all muscle groups of your upper body, as an endurance / toning circuit and also to increase the heart rate sufficiently to provide you with a sweat.

Aim to work at a fast comfortable pace within your own limits, taking minimal rest between the different exercises; this circuit is only suitable for persons use to weights.

LEVEL	SET 1		SET 2		SET 3		SET 4	
	REPS	REST	REPS	REST	REPS	REST	REPS	REST
INTERMEDIATE	12-15	30 SEC	10-15	30 SEC	-	-	-	-
ADVANCED	15-20	20 SEC	15-20	20 SEC	12-15	20 SEC	-	-
ATHLETIC	20-25	10 SEC	20-25	10 SEC	15 -20	15 SEC	15-20	15 SEC

### WARM UP AND STRETCH PRIOR TO DOING THIS CIRCUIT



**Wide Arm Press-Up.** Take your hands out at double shoulder width, with your palms facing forward. Dependent on your fitness level, choose your style to work in, i.e. 3/4 position for intermediates and full position for advanced.



**1 Arm Row.** Support your body by placing your left hand and knee on a bench, whilst placing the weight in your right hand, with the right foot securely on the floor.

Aim to keep your back parallel to the floor, whilst lifting the weighted elbow from a straight position to an angle of 90 degrees or more, aiming to take the elbow high without rotation.



**Biceps Curl**, again if possible perform in a seated position to limit excessive body swing.

For intermediates and advanced aim to perform the movement in the 3 following actions, normal / hammer / and reverse, full descriptions of all the exercises can be found in the [members area](#).



**Tricep Dips**, place your hands either side of your buttocks, with fingers facing forward. Bend at your elbows, taking them backwards. Perform on a secure bench with feet on the floor for intermediates, and feet on another bench for advanced. Focus on taking your elbows behind you.



**Breast Stroke.** Control the movement, ideally standing with feet shoulder width apart. Keep your head up looking straight ahead, with elbows at shoulder height. **LIGHTWEIGHT**

Make smooth controlled breast stroke swimming movements, whilst focusing on keeping your elbows at shoulder height.



**Bench Press** Aim to perform the exercises in either a close arm normal or wide stance exercise. Again you can adapt the exercise by using an incline / decline / or flat bench, whilst working with either dumbbells or a barbell.

Focus on a complete range of movement, lowering the weight down to your chest, however never use a weight that is too heavy so you can't lift it back up.



**Tricep Kick Backs.** Sit on a secure bench with your feet firmly on the floor, leaning over as far as possible, ideally to a position that enables your body to be parallel to the floor. **LIGHTWEIGHT**

Smoothly extend the arm back from a bent position, in order to straighten the arm, focusing on keeping your upper arm horizontal whilst keeping your elbow tucked into your side.

	<p><b>Reverse Fly's.</b> Support your back on either an inclined bench or the thigh of one leg. Keeping a bend in your arms lift the weight up no higher than shoulder height in a smooth motion, before lowering under control. <b>LIGHTWEIGHT</b></p>
	<p><b>Lateral Raise.</b> Holding suitable dumbbells in each hand, smoothly lift the weights up from your side, to a horizontal position out to your sides, aiming to keep a slight bend in your arms, hands inline with your shoulders.</p> <p>For best results, certainly for beginners, aim to work on a declined bench so that you have some support for your lower back.</p>
	<p><b>Close Arm Press-Ups.</b> Beginners should perform in a box style press-up, as this is a hard exercise. Aim to make a triangle with your fingers and thumbs, taking your elbows out to the side. Your hands should be under your chest.</p>
	<p><b>Normal Fly's.</b> Work on either a flat or incline bench, taking the weights from a central position, out to your sides, in line with your shoulders.</p> <p>Keep a slight bend in the arms at the elbow, lowering the weights no lower than your shoulders.</p>
	<p><b>Shoulder Press.</b> Aim to work in a seated position on an inclined bench for support for your back. Lift the weights from your shoulders, up above your head, keeping the palms of your hands facing forward. Make sure the weights are secure.</p>

Remember that by doing high reps 15+, you will build up muscular endurance, without increasing in size too much. Correct nutrition will help you build stronger leaner muscle tissue necessary for today's game.

Aim to fit 2 sessions in a week of strength training, as mentioned earlier, these can be combined with your C.V. sessions.

Use the weight training login sheet to monitor your progress, with the amount of weight that you can lift as well as the reps.

## Co - ordination / Skills

Eye - Body - Brain, is the way we want to have our co-ordination and skills. Unfortunately many of us see the ball, and our body takes too long to react to it passing us. This area can be improved by developing what is called your motor skills, so that you see the ball, and your body automatically positions itself in the correct place.

With a complete variety of situations you can be in for a ball to pass you, you need to work on improving your total body, to react as one fast efficient machine.

### Ladder Drills

Used to gain speed in footwork, lay out a rope ladder, or chalk out an area with approximately 15 inch squares. Combining ladders so that you go both forward and side ward's, will give you rapid results. The numbers indicate the order to run in.

L 1	2 R	L 3	4 R	L 5	6 R	<b>Single leg run;</b> aim to run on the ball of your foot, without catching the rope or chalk lines. L = Left foot R = Right foot

L 1	L 3	L 5	L 7	L 9	L 11	<b>Double leg run;</b> aim to run at speed through the rope ladder, pumping with your arms. L = Left foot R = Right foot
R 2	R 4	R 6	R 8	R 10	R 12	

L R 1 2	L R 3 4	L R 5 6	L R 7 8	L R 9 10	L R 11 12	<b>Double side step,</b> run through the ladder in a sideways direction, with either double or single leg. L = Left foot R = Right Foot

	L 6	L 12	L 18	<b>Key Shuffle,</b> As with the double run, but this time every third step comes outside the rope. L = Left foot R = Right foot		
L 2	L 4	L 8	L 10		L 14	L 16
R 1	R 5	R 7	R 11		R 13	R 17
	R 3	R 9	R 15			

L	R	L	R	L	R	Cross over's, Side step through the rope, taking your leading leg both in front and then behind the trailing leg. L = Left foot R = Right foot
1	2	3	4	5	6	

By performing these drills in both directions, you will soon realize that you are better on one side than the other. Aim to work on your weaker side for greater improvements in your game.

## Discipline

Its simple, whatever the referee says, it goes. Avoid getting yellow cards or getting sent off by learning to rise above poor decisions. If you get fouled, pick yourself up and get on with the game, lashing out at your opponent can end with your team playing with ten men, and you not being popular with your team-mates.

I'm personally not good at team sports, as I don't like to lose because of a weak link within the team. What I'm now learning to do, is to find that weak link and rectify it. If it means dropping a team member because there is a stronger player, then accept the coach's / managers choice and simply ask what you need to do to get your place back.

Too many players once dropped have a completely negative attitude, look upon it as a challenge to prove your coach wrong. Train wiser and smarter than before, show commitment to your team, and even if you don't make the first team, at least you can respect yourself for trying and giving 100 percent.

## Stretching

As with most sports, people forget to stretch prior to the start of the game. With football having sudden bursts at any point in the game, it is vital to stretch the whole body in order to prevent injury. After a gradual warm-up spend time stretching, both statically; then Dynamically. The [Netfit Members](#) Stretching area has warm up and stretching advice designed for Football, to help improve your game and prevent injury.

Dynamic stretching involves slow controlled rhythmic movements progressively through the range of movements associated with your game. A section on dynamic stretching will be added to the site.

A key point to remember is at the half time stage in a match, keep warm, take in fluid and energy bars that you are used to, to help your energy and concentration levels. Whilst listening to any team tactics, keep stretching your muscles and if possible, learn how to massage your own legs to help prevent injury and prepare yourself for the start of the game.

At the end of your game, spend time again stretching after you have showered / bathed, paying particular attention to your hamstrings. Due to the nature of the game, you will always pick up injuries, avoid these as much as possible by wearing correct protection and footwear. Have any injuries looked at as soon as possible, as minor tears become major ones, resulting in fewer matches for you.

## Get Fit for Waterskiing

### AEROBIC FITNESS

I, personally, wouldn't suggest running as good way to build fitness for waterskiing. Running puts a lot of stress on the knees which are quite important to a water-skier. If you do want to run, make sure that you have the proper training shoes to minimize the stress on your knees, or use a running machine these have more give in them, and will reduce the strain.

So what is good for aerobic fitness... cycling, stepper and climbing machines, cross trainers, rowing, and even walking. The best thing is that all of these will help to build strength as well as improving your general fitness.

OK, so you now have a good level of aerobic fitness, so what is anaerobic activity? This is where you put your body, heart and lungs through shorter periods of intense strain then rest for a period before repeating the strain. This is what happens when you slalom ski. A good way of working on this is using the same machines as for the aerobic exercises, but rather than staying at the same pace for 15-20 minutes, increase the effort and speed of your workout for about 30 seconds, then reduce the pace for a further 1 minute. Repeat this for about 10 minutes.

### LEGS

**Squats** - Keep your back straight. Try not to arch your back as you come up, and use only your thighs to push you up. Do not go down beyond the point where your knees are bent at 90 degrees.

**Leg Press** Keep your back flat against the bench. If you have trouble keeping you back flat, and your leg press machine allows it exercise one leg at a time. Again do not arch your back and try not to use your hip for extra leverage. Use only your thighs.

**Leg Curls** Keep this slow and put as much, if not more effort into the downward movement as the upward. Do not let the legs drop on the way down. Move the legs back down in a slow and controlled manner.

**Cycling/Stepper/Climber Machines** These will build leg strength and increase aerobic fitness



## Abdominal

Stomach and lower back - it is important to have a strong core. The basics are the best here. Sit-ups and crunches are the best thing for building a strong stomach. For a bit of variety you could also do leg raises. If you do leg raises ensure that you lean back on your elbows, with your hands level with your waist, but do not hold the small of your back. The most effective way of doing leg-raising exercises is to move the legs from 6 inches off the ground to a 45-degree angle. Keep going as long as you can. Do not let the legs drop to the ground. You can also use crunch machines and to exercise your stomach, but do this to complement sit-ups rather than instead of them. Ad-trainers are good, but only if they are used properly. If in doubt stick to sit-ups. Try for between 50-100 per day.

To complement your stomach muscles you need to have a strong lower back. This can be aided by doing back curls. Make sure that you do these slowly and in a controlled manner do not jerk the back it WILL cause injury.

Something else that is good for both the stomach and the lower back is rowing but you need to make sure that you are in the correct position

## UPPER BODY

**Chest, lats, shoulders, and upper back.**

It is possible to work most of the upper body muscle groups using just a few exercises. Straight-arm chin-ups, dips, lying pull-ups, and free incline presses. Most of the exercises will be familiar to you so I'll briefly talk about the lying pull-ups.

For this you will need a fixed bar. You should be able to have your feet on the ground, hold the bar with straight arms and have your shoulders clear of the ground. Now pull up slowly until your chin reaches the bar. Other exercises that can be used include Lat Pull Downs, Peck-Deck, fixed bench press, seated rows.

The majority of upper body exercise will also exercise your arms, so you will be killing 2 muscles with 1 move



## ARMS

You could go for bicep curls and triceps extensions, but the best things to do are the straight-arm chin-ups and triceps dips. These will help to build a good size to strength ratio.

In addition to this you need to work on forearm and grip strength. This can be done easily, by using a tennis ball or a sponge ball. You can work on your grip while watching TV just sit and squeeze the ball.

## SKIING FITNESS EXERCISES

Fitness exercises for skiing, should not be ignored, as skiing is for most people a recreational sport that they participate in once a year. For this reason most individuals are poorly conditioned prior to their skiing activity, and pay the price of sore muscles, reduced time on the slopes and injury.

Your skiing fitness program should begin a minimum of 8 weeks prior to your time on the slope. The key areas to look at are, **muscular strength and endurance**, especially in the muscles in the legs. **Flexibility**, having a good range of movement in your joints will enable your body to adjust to any sudden changes in your direction and also help prevent injury when you fall. **Aerobic** training will enable you to ski longer, as fatigue results in poor concentration ending in injury from crashing.

Most injuries occur in the afternoon of the first two days, this can workout to be an expensive holiday. The following skiing fitness exercises, will hopefully aid you to enjoy your time on the slopes.

### WEIGHT TRAINING EXERCISES LOWER BODY

	<p>Seated leg extension machine <b>Quads</b>. Keeping your back firmly into machine, place your feet under the foot pad, about shoulder width apart, just above your ankle level.</p> <p>As you develop your leg strength, aim to work for 3 sets of 10 - 12 reps, followed by 1 - 2 sets of 50% weight, using 1 leg for 4 - 8 reps.</p>
	<p><b>Calf</b> machine. Most modern gyms will have a calf machine, if not that use either a Smith Machine or Barbell across your shoulders.</p> <p>Stand straight with the balls of your feet on the platform, with the shoulder weight cushions comfortably placed on your shoulders; - avoid being bent up, or straining to reach the supports.</p> <p>Lift and lower slowly for 2 - 3 sets of 10 - 12 reps working for a full range.</p>
	<p>Cable adductor and abductor pulls, <b>Inner / Outer Thighs</b>. Aim for 2 sets Of 10 - 12 reps with a suitable weight. Work one leg, then simply turn around to face the other way, in order to work the abductors.</p> <p>Repeat on the other leg. Count the number of reps that you can do, in order to gauge the difference if any in strength in each leg.</p>



Leg Press **Quadriceps**. There are a number of foot positions you can use to work the different muscles of your quadriceps, you can have your feet close together - wide or shoulder width apart.

Work for 3 sets of 10-12 reps, for first set work with your feet close, then normal and finally wide, with toes pointing outwards.



**Hamstring Curl Machine**. Use a suitable weight and perform smooth reps. Avoid pushing yourself on this exercise, as most people's hamstrings will tend to be tight, and can easily be damaged.

Aim for 2 - 3 sets of 10 - 12 reps, using a light weight for your first set.



**Gluts / Hip Flexor Cable Pull** Connect a foot strap around a leg, just above the ankle joint, and attach this to a low cable pulley.

Aim to keep your legs and back straight throughout the exercise, to help isolate the gluts, holding a secure object for balance.

Work for 2 sets of 10 - 12 reps, on each leg - facing forward (gluts) and rearward (hip flexors).



**Complete Lower Body**. A combination of either front or rear lunges can be performed using a Smith Machine, however always make sure that you perform with a lightweight, enabling your leg muscles to get use to the movement prior to increasing the weight.

Aim for 2 sets of 10 - 15 reps each leg, using a light weight, however aim for a full range of movement.



**Adductor Machine**. Aim to keep your legs and back in contact with the machine at all times. Some machines will have a combination of settings, allowing the legs to be taken wider, avoid taking your legs out too far, especially for beginners.

It may be useful to warm up your muscles with a lightweight prior to your training weight.

Aim for 2 sets of 10 - 12 reps with a suitable weight.

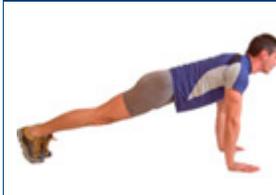
Aim to do these exercises twice a week, with at least 2 days rest between sessions. The main muscles used during skiing are those of your quadriceps (thighs), however a total body workout needs to be done, as all of your muscles will be used, and as soon as one of them becomes tired, your skiing ability will suffer.

The use of a Swiss Ball will certainly improve your core strength, whilst aiding your stability and balance on the slopes, there are over 200 different abdominal exercises and specific training programs for all levels on the Swiss Ball within our

Performing aerobic exercises to improve your fitness will reduce your risk of injury, as you will be able to maintain and focus upon your skiing technique. Look at designing yourself a simple circuit, whereby you will do a 30 - 45 seconds light jog / run, followed by 8 -15 of each exercise in a controlled manner.

On your first time around perform just the leg circuit, then the upper body and finally the abdominal exercises. Make sure that you do the lap jog / run after each leg / upper body or abdominal circuit.

<b>LEG CIRCUIT</b>		
		
Two footed squat thrusts - aim for a 12 inch jump.	Walking lunge forward - changing lead leg.	Alternate leg squat thrusts - count reps on 1 leg only.

<b>UPPER BODY CIRCUIT</b>		
		
Wide arm press-up. Take elbows out to your sides.	Normal press ups, aim to keep a straight line through your back.	Close Hand - Aim to keep your thumbs touching each other.

<b>ABDOMINAL CIRCUIT</b>		
		
Normal sit ups, keep your chin off your chest.	Alternate elbows to knees - count reps on one side only.	Alternate hand to foot - count reps one side.

Start by performing the exercises with adequate rest between each different exercise until you get fitter. Once you can do the exercises and repetitions comfortably, work on increasing the number of different circuit exercises you can perform, or change the exercises for ones that are slightly harder - if you don't then your fitness will not improve - look within our members area for over 1,000 different exercises plus a multitude of training programs.

Dependent upon your fitness level, you may only wish to perform the first 1 - 2 exercises, and add a new one as your fitness level increases / or at the beginning of a new week.

For those of you that are fitter, you should be able to run for 1 minute on each exercise for 2 sets.

- Working with a partner and to music will certainly help motivate you.
- Remember that you do not have to do all the exercises listed above.
- For competent skiers, and for those persons of a good fitness level, the ply metrics circuit will certainly improve your leg strength, resulting in greater skiing capabilities.

Along with the above circuit or weight training sessions, you should aim to do some form of aerobic training ideally 3 times a week.

The fitter you become, the more time you can spend skiing, and less chance you have of having a serious accident. With skiing being a sport in which you have sessions of moderate to high rate levels for periods ranging from 1-5 minutes plus, followed by periods of rest, i.e. traveling back up the slope, the best exercise to perform would be interval work.

The best aerobic equipment, would be skiing machines or steppers, however any aerobic equipment will benefit you.

Once you feel comfortable with your level of aerobic fitness, aim to implement some interval work into your sessions. These can be performed on any equipment or running / steppers / bike.

<b>EXAMPLE OF INTERVAL SESSION ON EXERCISE BIKE</b>						
Level 4	Level 6	Level 4	Level 7	Level 4	Level 8	Level 4
5 minutes easy.	2 minutes hard.	2 minutes easy.	90 seconds hard.	2 minutes easy.	1 minute hard.	5 minutes easy.
RPM 60	RPM 80+	RPM 60	RPM 80+	RPM 60	RPM 80+	RPM 60

<b>EXAMPLE OF INTERVAL SESSION ON RUNNING MACHINE</b>						
10 KPH	15 KPH	10 KPH	12 KPH	10 KPH	15 KPH	10 KPH
5 minutes easy.	200 meters hard.	2 minutes easy.	400 meters hard.	3 minutes easy.	200 meters hard.	5 minutes easy.

The above examples are only guidelines to illustrate ways in which you can increase the difficulty. The bike sample shows that by increasing the level from 4 to 6 / 7 / 8 you will only need to work for a short period keeping the speed the same in order to raise your heart rate.

The same would work for the running machine, however here we have used distance as the interval guide. The faster you run, the shorter the distance you can cover, likewise placing any upward gradient into your run will make it harder.

Remember to give your body sufficient time to recover, i.e. for our 400 meter run, we have an extra minute to allow the heart rate to recover, as well as doing the run at a slower speed.

Only persons of a reasonable fitness level should perform these types of workouts, if you feel faint or ill in any way, stop immediately.

As mentioned earlier, most accidents occur in the afternoon, this is due to both poor fitness levels in skiers, and the fact that as a recreational sport, most participants avoid both eating and drinking regularly. Maintain your food and fluid intake whilst on the slopes, preferably hot meals or such foods as flapjacks, and warm drinks.

**Train well before you go skiing, and you will get more out of your sport.**

# STRENGTH EXERCISES FOR SWIMMING

Swimming is a sport that requires both muscular strength and endurance, and for this reason when training with weights you need to concentrate on developing strong muscles with high endurance capabilities.

Aim for either high reps (15+) with low / medium size weights ideally for 1-2 sets, to build good muscular endurance, followed by 1 set using a heavier weight, for 6-10 reps to build strength (not size), or the reps outlined below.

Training with weights 2-3 times a week, will give you good results, concentrate on the upper body for two sessions, the lower body for one session. Always remember to have a minimum of a day's rest between weight training sessions.

Read the notes on strength training, as well as the individual notes to obtain good technique. The below exercises are only examples, you do not need to do them all, however aim to increase the number of different exercises you do each week.

## WARM UP AND STRETCH PRIOR TO DOING THIS CIRCUIT



**Wide Arm Press-Up.** Take your hands out at double shoulder width, with your palms facing forward. Dependent on your fitness level, choose your style to work in, i.e. 3/4 position for intermediates and full position for advanced.



**1 Arm Row.** Support your body by placing your left hand and knee on a bench, whilst placing the weight in your right hand, with the right foot securely on the floor.

Aim to keep your back parallel to the floor, whilst lifting the weighted elbow from a straight position to an angle of 90 degrees or more, aiming to take the elbow high without rotation.



**Biceps Curl,** again if possible perform in a seated position to limit excessive body swing.

For intermediates and advanced aim to perform the movement in the 3 following actions, normal / hammer / and reverse, full descriptions of all the exercises can be found in the



**Tricep Dips,** place your hands either side of your buttocks, with fingers facing forward. Bend at your elbows, taking them backwards. Perform on a secure bench with feet on the floor for intermediates, and feet on another bench for advanced. Focus on taking your elbows behind you.



**Breast Stroke.** Control the movement, ideally standing with feet shoulder width apart. Keep your head up looking straight ahead, with elbows at shoulder height. **LIGHTWEIGHT**

Make smooth controlled breast stroke swimming movements, whilst focusing on keeping your elbows at shoulder height.



**Bench Press** Aim to perform the exercises in either a close arm normal or wide stance exercise. Again you can adapt the exercise by using an incline / decline / or flat bench, whilst working with either dumbbells or a barbell.

Focus on a complete range of movement, lowering the weight down to your chest, however never use a weight that is too heavy so you can't lift it back up.



**Tricep Kick Backs.** Sit on a secure bench with your feet firmly on the floor, leaning over as far as possible, ideally to a position that enables your body to be parallel to the floor. **LIGHTWEIGHT**

Smoothly extend the arm back from a bent position, in order to straighten the arm, focusing on keeping your upper arm horizontal whilst keeping your elbow tucked into your side.



**Reverse Fly's.** Support your back on either an inclined bench or the thigh of one leg. Keeping a bend in your arms lift the weight up no higher than shoulder height in a smooth motion, before lowering under control. **LIGHTWEIGHT**



**Lateral Raise.** Holding suitable dumbbells in each hand, smoothly lift the weights up from your side, to a horizontal position out to your sides, aiming to keep a slight bend in your arms, hands inline with your shoulders.

For best results, certainly for beginners, aim to work on a declined bench so that you have some support for your lower back.



**Close Arm Press-Ups.** Beginners should perform in a box style press-up, as this is a hard exercise. Aim to make a triangle with your fingers and thumbs, taking your elbows out to the side. Your hands should be under your chest.



**Normal Fly's.** Work on either a flat or incline bench, taking the weights from a central position, out to your sides, in line with your shoulders.

Keep a slight bend in the arms at the elbow, lowering the weights no lower than your shoulders.



**Shoulder Press.** Aim to work in a seated position on an inclined bench for support for your back. Lift the weights from your shoulders, up above your head, keeping the palms of your hands facing forward. Make sure the weights are secure.

Swimming involves all major muscle groups, and for this reason any weakness, will result in poor performance. Throughout the year, you should combine some form of weight training into your training sessions, to keep your muscular strength.

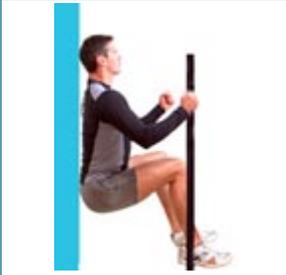
Circuit training, especially using lightweights will also be highly beneficial for persons who wish to improve their fitness level for competitive swimming.

As always mentioned, prior to exercising, you should always warm-up and stretch. For swimmer's, it is vital that you spend quality time stretching both before and after all exercise routines, either weight training / circuits / swimming, in order to maintain good flexibility.

## LOWER BODY AND ABDOMINAL WORKOUT

Use this lower body circuit, which has been taken from our home workout section - there is a suitable weights training program available in the members area, along with a number of abdominal training programs for all levels.

You should spend time stretching prior to performing any of these workouts, and certainly prior to your swimming sessions, as having a greater range of mobility will increase both the power and efficiency of your stroke. For this reason we have designed a dedicated stretch routine for swimmers within our

<b>SIDE LEG RAISE</b> <b>BL (BOTH LEGS)</b>	<b>WALL SQUAT</b>	<b>BL TOE TOUCH</b> <b>OPPOSITE HAND</b>	<b>1LEG SQUAT BL</b>
			
<b>BL STATIC</b> <b>ADDUCTORS</b>	<b>BL PULSING</b> <b>HIP</b> <b>EXTENSION</b>	<b>BL PULSING</b> <b>ABDUCTORS</b>	<b>BL BENT LEG</b> <b>SIDE</b> <b>RAISES</b>
			
<b>MOVING SQUATS</b>	<b>DEEP SQUATS</b>	<b>BL FRONT</b> <b>RAISED LUNGE</b>	<b>BL STANDING</b> <b>REAR SQUAT</b>
			

Aim to work through all 12 exercises - giving yourself enough rest between each exercise so that you can perform the next. Look at working for a total of 45 - 60 seconds for each exercise, with a minimum of 15 seconds rest, then repeat the next exercise for 45 - 60 seconds until all exercises have been completed.

Once you have completed all 12 exercises walk around for 1 minute to enable the heart rate to come down gradually, taking in some water if you need it, then repeat all the exercises again for a further 45 - 60 seconds with 15 seconds rest between exercises.

Remember the secret to fitness is consistency and variety - so keep up the good work

# TRAINING FOR RACQUET SPORTS

Being a sport that requires many physical requirements, such as good flexibility, co-ordination, aerobic fitness, strength and a good mental ability, there is obviously a lot of room for improvement in most players of any racket sport.

The main racket sports are Tennis, Squash, Racquetball and Badminton. They are all similar in the fact that they require the same physical training.

- Short bursts of explosive exercise, either sprinting, jumping or swinging the racket.
- Short recovery between each point, especially for squash and badminton when played at a high standard. With tennis having short rest breaks at various intervals of the game.
- A lot of running around back and forth with plenty of lateral movement to both sides.
- Time on court can vary from 30 minutes to 3 hours plus, so a good endurance base is required for those that are serious about their sport.
- There is no rest period during intense rallies, the rally stops when a player loses a point. Points are lost and won depending on the skills and fitness level of you the player.

When you play your chosen racket sport, analyse each point you win and lose, with a number of different players to find your strengths and weaknesses. Work on improving all areas, however start with the ones that you are weak on, in order to improve your game quickly.

Break your results down into two groups: -

- **Physical**; your fitness level, flexibility, and strength.
- **Mental**; Co-ordination, skills, tactical abilities, and frame of mind.

Let's remember to [get fit to play sport, not play sport to get fit](#), this way, we will enjoy the game more, and reduce the risk of injury.

Improving your physical fitness side is straightforward; you need to improve your endurance by ideally a minimum of 30 minutes cardiovascular activity at the right level 3 times a week.

Avoid doing your cardiovascular workout before you play your game. Look in the Bodywork's section of the site under Heart and Lungs for suitable exercises, and Aerobic training in the Fitness section for guidelines on how hard to train.

Both weight training exercises and explosive leg exercises such as short sprints and plyometrics can improve explosive power. Remember to work within your own limits.

Aim to spend 1 day a week doing either sprint / plyometric work. As these are both very demanding, avoid if you have a low fitness level, or any injury.

For your sprint work, try and do the sprints on the court you play on, wearing the same training shoes you play in. There are many variations, however keep them short as for your sport.

**Shuttle sprints**, from baseline to serving box and back, then up to the net and back. You can repeat this with either no rest or short rest. For best results run against a partner.

As above but sprint forward, and run backwards coming back.

**Ball retrieval**, place a number of balls across the court, sprint to each one pick it up, return it to the baseline, continue until all balls are recovered. [Try timing yourself.](#)

**Partner Ball Throw**, Stand with your back towards the net or wall, with your eyes shut, have your partner throw a ball in the air behind you somewhere. When they say "go", aim to reach the ball as quickly as possible, you can also aim to hit the ball over the net etc. with your racket.

**North South East West**, Sprint North towards the net / wall, as you get half way, side step East to the sideline / wall, then continue to sprint North. On reaching the net / wall, run backwards to halfway mark, and side step West to side line, then run back again to baseline. Take care when running backwards.

## STRENGTH TRAINING

The following exercises will help increase your body strength, resulting in greater power. Aim to do these strength / aerobic training sessions if possible twice a week, especially in the off season. The members area will give you a full exercise description, plus a number of different workouts to gain all over body strength using both machine and free weights - speed and flexibility to improve your game.

The key area for improving the power behind your serving and returning of the ball, will come from a strong core stability muscle mid-section. Our members area has over 200 different exercises for the abdominals, including a number of different workouts which are suitable for all fitness levels, using body weight - Swiss Balls and medicine balls - why not take a look and see how you and your game can benefit.

## SESSION 1

### LOWER BODY WORKOUT INTERMEDIATES 1

Use the following exercises to help strengthen and develop your lower body, aiming to perform each exercise correctly for 30 - 45 seconds, keeping good technique.

Rest for a minimum of 15 seconds prior to performing the next exercise. Once you have worked through all the exercises, walk around for 1 - 2 minutes, taking in some water, and then repeat the complete workout again.

Always warm - up and stretch prior to performing this circuit.

Date		Time	
HIGH KNEE RUN CV	WALL SQUAT (HOLD FOR 30 SECONDS)	STAR JUMPS CV	FRONT / REAR LUNGE WALK
			
PLIE LUNGE	A / LEG SQUAT THRUSTS CV	LYING ABDUCTORS	LYING ADDUCTORS
			

Aim to work through all 8 exercises - giving yourself enough rest between each exercise so that you can perform the next.

If your tired only work for 4 - 6 exercises.

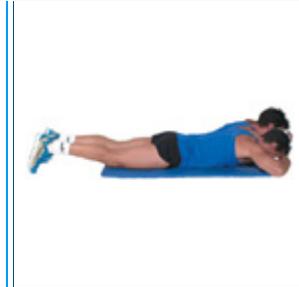
## SESSION 2

### UPPER BODY WORKOUT INTERMEDIATES 1

Use the following exercises to help strengthen and develop your upper body, aiming to perform each exercise correctly for 30 - 45 seconds, keeping good technique.

Rest for a minimum of 15 seconds prior to performing the next exercise. Once you have worked through all the exercises, walk around for 1 - 2 minutes, taking in some water, and then repeat the complete workout again for a further 30 - 45 seconds.

Always warm - up and stretch prior to performing this circuit.

Date		Time	
PUNCHING	TRICEP DIPS	DORSAL RAISES	3/4 PRESS UP
			
SUPERMANS	WIDE ARM DIPS	SPEEDBALL	SWIMMING
			

Aim to work through all 8 exercises - giving yourself enough rest between each exercise so that you can perform the next.

If your tired only work for 4 - 6 exercises.

Along with these exercises, you should aim to do the following at least twice a week, to aid prevention from tennis elbow, and shoulder instability, which can occur due to the muscles in your chest and front (deltoid) shoulder becoming stronger than those of your back.

Aim to do the following WRIST exercises 2 - 3 times a week.			
			
Large rotations of a disk weight / heavy plate for 30 seconds in each direction. Keep the movement from the wrist.	Grasp a disk weight / heavy book between your fingers - holding for 30 seconds plus - keep weight close to the floor.	Lift and lower a light bar or broom handle / golf club, using just the muscles of your wrist and forearm to do the lifting. Lift and lower under control 10/12 times.	Hold a suitable bar or broomstick at arms length - smoothly cross over your hands towards the ends of the bar - keeping the bar horizontal. Aim for 5 moves in each way.

Aim to do the following WRIST weight exercises 2 - 3 times a week.			
			

Perform 2 sets of each exercise with suitable weight 12 / 15 times.

Perform these exercises with either a band or low cable machine pulley, ideally twice a week, however not before your game. Aim for 10 - 12 reps of each exercise. Aim to keep the elbow by your side for the last two exercises.



## Stretching

As with most sports, people forget to stretch prior to the start of the game. With all racquet sports having sudden bursts at any point in the game, it is vital to stretch the whole body in order to prevent injury. After a gradual warm-up spend time stretching, both statically; (see the section on stretching in the fitness area of the Web Site), then DYNAMICALLY.

Dynamic stretching involves slow controlled rhythmic movements progressively through the range of movements associated with your game. A section on dynamic stretching will be added to the site.

At the end of your game, again spend a few minutes stretching of your muscles.

## Co - ordination / Skills

Eye - Body - Brain, is the way we want to have our co-ordination and skills. Unfortunately many of us see the ball, and our body takes too long to react to it passing us. This area can be improved by developing what is called your *motor skills*, so that you see the ball, and your body automatically positions itself in the correct place.

With a complete variety of situations you can be in for a ball to pass you, you need to work on improving your total body, to react as one fast efficient machine.

## Ladder Drills

Used to gain speed in footwork, lay out a rope ladder, or chalk out an area with approximately 15 inch squares. Combining ladders so that you go both forward and side ward's, will give you rapid results. The numbers indicate the order to run in.

L	2	L	4	L	6	Single leg run; aim to run on the ball of your foot, without catching the rope or chalk lines. L = Left foot R = Right foot
1	R	3	R	5	R	

L 1	L 3	L 5	L 7	L 9	L 11	Double leg run; aim to run at speed through the rope ladder, pumping with your arms. L = Left foot R = Right foot
R 2	R 4	R 6	R 8	R 10	R 12	

L R	L R	L R	L R	L R	L R	Double side step, run through the ladder in a sideways direction, with either double or single leg. L = Left foot R = Right Foot
1 2	3 4	5 6	7 8	9 10	11 12	

	L 6	L 12	L 18	Ickey Shuffle, As with the double run, but this time every third step comes outside the rope. L = Left foot R = Right foot		
L 2	L 4	L 8	L 10			
R 1	R 5	R 7	R 11	R 13	R 17	
	R 3	R 9	R 15			

L	R	L	R	L	R	Cross over's, Side step through the rope, taking your leading leg both in front and then behind the trailing leg. L = Left foot R = Right foot
1	2	3	4	5	6	

By performing these drills in both directions, you will soon realize that you are better on one side than the other. Aim to work on your weaker side for greater improvements in your game.

The following drills with help improve hand / eye speed

- **Ball Drops:** Have a partner hold a ball in each hand, and get them to drop one of them without warning in front of you. Your aim is to catch the ball before it hits the floor.

- **Balloon & Foot:** Blow two balloons up, and spend time keeping them up in the air by either hitting them with a racket, or kicking them with your feet.
- **Hand Changes:** Playing against a wall with a ball, constantly hit the wall changing hands rapidly between shots, aim to get as close to the wall as possible.
- **Ball over Shoulder:** Looking straight ahead, have a partner drop a ball over your shoulder, aim to hit the ball as quickly as possible either over the net or against the wall.
- **Balance Ball Bounce:** If possible work on a wobble board, whilst a partner bounces balls towards you. The aim is to rapidly change your position whilst being off balance.
- **Ball Play:** Working on your bad shots, have a partner constantly play against these shots so that you can analysis what you are doing wrong.

Remember becoming fitter will certainly help your chosen racquet sport, however good advice from a qualified coach, or simply watching professionals play, will help improve both your tactical ability and skills for the game.

A positive frame of mind is essential in all sports, if you want to be a winner. Avoid getting negative, or simply giving up the game, especially in Tennis. Work hard for every point, aim to win every point, and watch the pressure you put on your opponent, when you are 40 / 0 down but trying your hardest just to make it 40 / 15. It is here that your opponent will start to get double faults, or simply get frustrated with their game.

Remember that not everyone wants to win, some people will play the game for the enjoyment, I hope that these notes will improve your game, and enable you to play with players that are normally of a higher level.