



PHYSICAL CONDITIONING FOR RUGBY REFEREES

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Providing coaches, referees, players, and administrators with the knowledge, skills, and leadership abilities to ensure that safety and best practice principles are incorporated into all aspects of contact rugby.

TABLE 1: DIVISION OF THE RUGBY YEAR INTO ITS RESPECTIVE MESOCYCLES.

CATEGORY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP
Mesocycle (Period)	Off-Season Phase			Pre-Season Phase			In-Season Phase				Transition phase	
Resistance Training Emphasis (phase)	GP*	GP* OR Hypertrophy if required**		GP* or Maintenance							Active Rest	
Fitness Conditioning Emphasis	Aerobic & anaerobic			Anaerobic & Aerobic			Fitness Maintenance				Active Rest	

GP*= General preparation (to generally improve muscle endurance and strength)

Hypertrophy if required**= This type of training is generally not required by referees therefore is not included in these guidelines. The player's guidelines on conditioning give a number of examples of Hypertrophy and power programmes if required.

REFEREE CONDITIONING PROGRAMS

Periodisation (the four-week rule):

The rationale for dividing up the season into different phases is to enable one to focus on different fitness attributes over time. Despite this differentiation, no person can train flat out for a prolonged period of time without becoming overtrained. It is for this reason that we apply a simple rule to the referees' conditioning program: every 4th week must be an easy week. The way to create an easy week is to drop a minimum of two sessions off the prescribed training load for that specific week (one cardiovascular endurance session and one resistance training session). This strategy will assist the referee to avoid chronic fatigue (overtraining).

Periods of the rugby training year:

The Conditioning programs are divided into 4 periods as defined below:

1. Off-season: Defined as the period after the transition phase of the previous season and the pre-season structured team practice. In the programs outlined below, 12 weeks of training have been assigned to this period. This is a period where one focuses on building a general conditioning base.
2. Pre-season: Defined as the period between the first pre-season structured team practice and the first league match. The preseason period may be divided into 2 phases, which may be separated by the first friendly or practice match. In the programs outlined below, the 12-week pre-season period has been broken down into two 6-week phases. The first 6-week phase should emphasise an increase in intensity and specificity of training while the second 6 weeks is more of a maintenance phase with a final taper in the last two weeks. One should drop the training volume by about 30% in the last two weeks of the preseason to ensure that one does not start the season in a fatigued state.
3. In-season: Defined as the duration of the season, i.e. the period between the first and last league match.
4. Transition period/active rest period: Defined as the 2-4 weeks after in-season period. No conditioning programs have been prescribed for this period, as referees should give their bodies a break during this period. Referees may stay active by participating in non sport-specific recreational activities performed at low volume and intensity, but no structured training is necessary. Where necessary, referees should follow a rehabilitation program, to ensure recovery of injury between seasons.

Resistance training guidelines:

Resistance training sessions are prescribed for the length of the off-, pre- and in-season periods. Each specific workout is defined in the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS**, and each exercise mentioned is described within the **EXERCISE DESCRIPTION** section. Additional exercises are provided allowing the referee or trainer to make ongoing changes as required.

Training status (Beginner, Intermediate, Advanced):

Before the training programs are assigned, referees should be classified into either beginner, intermediate or advanced according to their general training experience (as shown in Table 2). Once beginners have completed the 8 week preparatory period (i.e. 8 weeks of the beginner programs outlined for the off-season period), they may advance onto the intermediate program. A beginner starting training in the pre-

or in-season should always perform the first 8 weeks of the off-season program before starting the intermediate program.

TABLE 2: CLASSIFICATION OF REFEREES ACCORDING TO TRAINING EXPERIENCE

Training Status	Training Age
Beginner	< 8 weeks
Intermediate	> 8 weeks, and <12months
Advanced	>12months

Training age = Duration that a structured training program has been followed.

No gym access alternatives:

Within each workout there are options for individuals without access to gym equipment;

1. No gym alternative workout; These workouts rely on resistance applied from a fellow referee or training partner. This alternative is given within all beginner and intermediate programs. Due to the greater difficulty with variation of load, referees should rather perform as many repetitions (reps) as possible, and only use the prescribed rep range when variable resistance is possible. No training partner alternative; When there is no team mate or training partner available to train with referees should perform this alternative. Referees only require resistive tubing (i.e. bicycle tyre tube, theraband, toning tube etc.). Due to the greater difficulty with variation of load, referees should rather perform as many repetitions (reps) as possible and only use the prescribed rep range when variable resistance is possible. Due to the difficulty applying variable resistance and the limited exercise selection no training partner alternatives are only given for the beginner program in the off-season phase. Referees without gym access and without a training partner or team mate should thus remain performing these workouts.

Load (weight) selection:

The number of reps determines how heavy the weight lifted should be, i.e. if 12 reps are prescribed, a weight should be selected for which 12 reps may be performed with good form and technique. If it is possible to complete more reps a heavier weight should be used. A repetition maximum is the maximum amount of repetitions which can be performed with a certain weight. Weights should be selected according to the RM prescription.

General precautions:

1. When starting an exercise ensure one is sufficiently warm, complete a warm-up set of 10 reps with the weight being 50% of the weight normally used. This warm-up set does not count as a working set.

2. Always ensure the correct breathing patterns are used. Always take a deep breath (inhale) while the specific muscle worked is being lengthened (eccentric contraction), and breath out (exhale) while the weight is being pushed or pulled. Do not hold your breath while performing any exercise.
3. Never work in pain, if a certain exercise causes pain, the referee should immediately decrease the amount of weight. If this is not successful, then leave out that specific exercise for one week. If the pain is still present after one week when retrying the exercise, then leave that specific exercise out of your routine.
4. Always perform a 10 minute warm-up, followed by 5 minutes of stretching prior to a training session. Prior to an exercise session referees should use dynamic stretches (joint movements where the range is gradually increased). After every session referees should stretch, using static stretches (where a stretch is held for 20-30 seconds) for 5 minutes. Never stretch in pain, one should only feel a pulling sensation.
5. Always use good form and technique as described in the **EXERCISE DESCRIPTION** section
6. Always use a spotter when performing heavy lifts.
7. When picking up a weight off the floor, always bend your knees and keep your back straight and lower stomach tight.

Fitness conditioning guidelines:

Fitness conditioning during the off-season period is prescribed for referees to prepare themselves for the pre-season period. Depending on individual needs, referees may choose to do less or more. No hypertrophy or power training programmes are provided as these are not usually required by referees. These programmes are however available in the players' section on conditioning. In addition the beginner, intermediate and advanced programmes are differentiated by the amount and intensity of all types of training (e.g. cardiovascular endurance and speed etc.), and not just the weight training as is the case for the players programmes. Most referees should perform well on the intermediate program. A referee who feels that they are not progressing as expected even though they have followed the intermediate programme, may then complete the advanced programme.

Fitness conditioning sessions 1 to 6 (FC1, FC2, FC3, FC4, FC5, FC6) are mainly gym based sessions and make up the bulk of the off-season phase cardiovascular endurance training, although two of these sessions are used throughout the year. Field sessions 1 to 7 (FS1, FS2, FS3, FS4, FS5, FS6, FS7) are all field based and are only introduced in the pre and in-season phases.

Each specific conditioning session is defined in the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS**. SAQ drills are prescribed, please see the **EXERCISE DESCRIPTION** section for examples of SAQ drills referees might choose to use in this session.

Disclaimer:

Although all the exercises are clearly described, and photos of correct technique are attached, referees should consult with a suitable qualified person (e.g. a biokineticist) to ensure proper technique is used on all the programs. BokSmart may not be held liable for any injury or harm incurred as a result of using this conditioning program.

OFF-SEASON CONDITIONING PROGRAM (WEEK 1-12):

		Beginner		Intermediate		Advanced	
		AM	PM	AM	PM	AM	PM
Week 1-4	Monday	BEGINNER CYCLE 1	IWTC2	INTERMEDIATE CYCLE 1	UBE	ADVANCED CYCLE 1	FCS2 AND WTC1
	Tuesday		FCS1		FCS1		FCS1 AND LBE
	Wednesday		REST		IWTC1/2*		REST
	Thursday		IWTC1		REST		FCS4 AND UBE
	Friday		FCS2		LBE		IWTC2
	Saturday		REST		FCS3		FCS6
	Sunday		REST		REST		REST
Week 5-8	Monday	BEGINNER CYCLE 1	IWTC2	INTERMEDIATE CYCLE 1	UBE	ADVANCED CYCLE 1	FCS3/4* AND IWTC1
	Tuesday		FCS3		FCS1		FCS1 AND LBE
	Wednesday		REST		IWTC1/2*		FCS5
	Thursday		IWTC1		FCS6		FCS2 AND UBE
	Friday		FCS4		LBE		IWTC2
	Saturday		IWTC2		FCS3		FCS6
	Sunday		REST		REST		REST
Week 9-10	Monday	Once 8 weeks has been performed a referee may advance to INTERMEDIATE CYCLE 2 program for the remaining weeks of the off-season period.	INTERMEDIATE CYCLE 2	FCS2 AND IWTC1	Repeat ADVANCED CYCLE 1 week 5-8 for the duration of the off-season period.		
	Tuesday			FCS1 AND LBE			
	Wednesday			REST			
	Thursday			FCS4 AND UBE			
	Friday			IWTC2			
	Saturday			FCS6			
	Sunday			REST			
Week 11-12	Monday		FCS4 AND IWTC1				
	Tuesday		FCS1 AND LBE				
	Wednesday		REST				
	Thursday		FCS5 AND UBE				
	Friday		IWTC2				
	Saturday		FCS6				
	Sunday		REST				

To avoid overtraining it important that one reduce the workload every 4 weeks. A practical way to implement this is drop one cardio and one strength session every fourth week.

* One will alternate weekly between the two sessions listed next to this symbol.

UBE=Upper Body Endurance, LBE=Lower Body Endurance

IWTC1 or IWTC2= Interval Weight training Circuit 1 or 2

FCS1, FCS2, FCS3, FCS4, FCS5, FCS6= Fitness Conditioning Session 1,2,3,4,5,6,7

Please see the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS** section for further details and outline of each session above. Each exercise within the programs is detailed in the **EXERCISE DESCRIPTION** section.

PRE-SEASON CONDITIONING PROGRAM - PHASE 1 (WEEK 1-6):

		Intermediate (INT)		Advanced (ADV)	
		AM	PM	AM	PM
Week 1-3	Monday	IWTC1	FS1	IWTC1	FS1
	Tuesday	LBE		LBE	
	Wednesday		SAQ		SAQ
	Thursday	UBE		UBE	
	Friday	IWTC2		IWTC2	FC5
	Saturday	FCS6		FCS6	
	Sunday	REST		REST	
Week 4-6	Monday	IWTC1/UBE*	FS1/FS2*	IWTC1/UBE*	FS1/FS2*
	Tuesday		FS3		FS3
	Wednesday	REST/ SAQ*		SAQ/FS6*	
	Thursday	IWTC2/LBE*		IWTC2/LBE*	
	Friday	FS4		FS4	
	Saturday	FCS6		FCS6	
	Sunday	REST		REST	
	NB Remember that every 4th week should be an easy week; this is achieved by dropping a minimum of two sessions from that specific week.				

* One will alternate weekly between the two sessions listed next to this symbol.

SAQ= Selected Speed, Agility and Quickness drills

UBE=Upper Body Endurance, LBE=Lower Body Endurance

IWTC1 or IWTC2= Interval Weight Training Circuit 1 or 2

FCS6= Fitness Conditioning Session 6

FS1,2,3,4,5,6,7 = Field Session 1,2,3,4,5,6,7

Please see the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS** section for further details and outline of each session above.

Each exercise within the programs is detailed in the **EXERCISE DESCRIPTION** section.
PLEASE SEE DISCLAIMER BEFORE STARTING THE CONDITIONING PROGRAM.

PRE-SEASON CONDITIONING PROGRAM - PHASE 2 (WEEK 8-13):

		Intermediate		Advanced	
		AM	PM	AM	PM
Week 8-13	Monday	IWTC1/UBE*		IWTC1/UBE*	FCS6
	Tuesday		FS1/FS2*		FS1/FS2*
	Wednesday	SAQ/FS6*		SAQ/FS6*	
	Thursday		FS5		FS5
	Friday	REST		REST	
	Saturday	PRACTICE MATCH OR FS7		PRACTICE MATCH OR FS7	
	Sunday	IWTC2/LBE*		FCS1 AND WTC2/LBE*	
NB Remember that every 4th week should be an easy week; this is achieved by dropping a minimum of two sessions from that specific week.					

*One will alternate weekly between the two sessions listed next to this symbol.

SAQ= Selected Speed, Agility and Quickness drills

UBE=Upper Body Endurance, LBE=Lower Body Endurance

IWTC1 or IWTC2= Interval Weight Training Circuit 1 or 2

FCS1, FCS6= Fitness Conditioning Session 1, 6

FS1,2,3,4,5,6,7 = Field Session 1,2,3,4,5,6,7

Please see the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS** section for further details and outline of each session above.

Each exercise within the programs is detailed in the **EXERCISE DESCRIPTION** section.

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IN-SEASON CONDITIONING PROGRAM:

		Intermediate		Advanced	
		AM	PM	AM	PM
Week with Saturday match	Monday	FCS1/FCS6*	IWTC2/LBE*	FCS1/FCS6*	IWTC2/LBE*
	Tuesday	SAQ/FS6*		SAQ/FS6*	
	Wednesday	IWTC1/UBE*		IWTC1/UBE*	
	Thursday	FS3/FS1		FS3/FS1	
	Friday	REST		REST	
	Saturday	LEAGUE MATCH		LEAGUE MATCH	
	Sunday	REST		FS4	
Week with Midweek match	Monday	FCS1/FCS6*	IWTC2/LBE*	FCS1/FCS6*	IWTC2/LBE*
	Tuesday	REST		REST	
	Wednesday	LEAGUE MATCH		LEAGUE MATCH	
	Thursday	FS3/FS1		FS3/FS1	
	Friday	REST		REST	
	Saturday	LEAGUE MATCH		LEAGUE MATCH	
	Sunday	IWTC1/UBE*		IWTC1/UBE*	
Week with no match	Monday	FCS1/FCS6*	IWTC2/LBE*	FCS1/FCS6*	IWTC2/LBE*
	Tuesday	SAQ/FS6*		SAQ/FS6*	
	Wednesday	IWTC1/UBE*		IWTC1/UBE*	
	Thursday	FS3/FS1*		FS3/FS1*	
	Friday	REST		FS4	
	Saturday	FS5/FS7*		FS5/FS7*	
	Sunday	REST		REST	

NB Remember that every 4th week should be an easy week; this is achieved by dropping a minimum of two sessions from that specific week.

* One will alternate weekly between the two sessions listed next to this symbol.

SAQ= Selected Speed, Agility and Quickness drills

UBE=Upper Body Endurance, LBE=Lower Body Endurance

IWTC1 or IWTC2= Interval Weight Training Circuit 1 or 2

FCS1, FCS6= Fitness Conditioning Session 1,6

FS1,2,3,4,5,6,7 = Field Session 1,2,3,4,5,6,7

Please see the **SPECIFIC WORKOUT AND CONDITIONING PROGRAMS** section for further details and outline of each session above.

Each exercise within the programs is detailed in the **EXERCISE DESCRIPTION** section.

PLEASE SEE DISCLAIMER BEFORE STARTING THE CONDITIONING PROGRAM.

SPECIFIC WORKOUT PROGRAMS:

1. Upper Body Endurance Program (UBE)
2. Lower Body Endurance Program (LBE)

3. Interval Weight Training Circuit 1 (IWTC1)
4. Interval Weight Training Circuit 2 (IWTC2)

5. Fitness Conditioning Session 1 (FCS1)
6. Fitness Conditioning Session 2 (FCS2)
7. Fitness Conditioning Session 3 (FCS3)
8. Fitness Conditioning Session 4 (FCS4)
9. Fitness Conditioning Session 5 (FCS5)
10. Fitness Conditioning Session 6 (FCS6)

11. Field Session 1 (FS1)
12. Field Session 2 (FS2)
13. Field Session 3 (FS3)
14. Field Session 4 (FS4)
15. Field Session 5 (FS5)
16. Field Session 6 (FS6)
17. Field Session 7 (FS7)

1. Upper Body Muscle Endurance Program (UBE)

Rest 90 seconds for the © (core) exercises
Rest 45 seconds for all other exercises

Exercise OR No gym alternative exercise OR No training partner alternative	Sets	Reps*			
		Week1&2	Week3&4	Week5&6	Week7&8
Warm-up (any cardio machine or light jogging)	1	10 minutes			
Stretch (Back and Upper Body)	1	5 minutes			
Shoulder Step-ups	2	20,20	20,20	20,20	20,20
Push-Ups	2	15,15	15,15	15,15	15,15
Flat Bench Press © OR Buddy resisted push-ups OR Band chest press	3	15,15,15	15,12,12	15,12,10	12,10,8
Lat pull down to chest © OR Buddy resisted broomstick row OR Seated band 45° row	3	15,15,15	15,12,12	15,12,10	12,10,8
Dumbbell Shoulder Press © OR Buddy resisted broomstick press OR Band Shoulder press	3	15,15,15	15,12,12	15,12,10	12,10,8
Incline Bicep Curl OR Buddy resisted broomstick curl OR Band bicep curl	3	15,15,15	15,12,12	15,12,10	12,10,8
Standing Cable Tricep Extensions OR Buddy resisted rope extensions OR Upright Band tricep extensions	3	15,15,15	15,12,12	15,12,10	12,10,8
Abdominal Crunch (straight ,side to side, touching toes) (Superset)	3	20,20,20	25,25,25	30,30,30	35,35,35
Alternate leg raise bridge on Swiss ball	2	10-15	15-20	15-20	15-20
Cool-Down & Stretch	1	5 min.	5 min.	5 min.	5 min.

Refer to the **EXERCISE DESCRIPTION** section for technique guidance. The **EXERCISE DESCRIPTION** is merely for descriptive purposes; consult with a suitable qualified person (e.g. a biokineticist) to ensure proper technique is used in all the exercises.

Over time one may decide to **change specific exercises** or to swap out exercises for the same body part. This can be done by selecting alternative exercises from the **EXERCISE DESCRIPTION** section.

Each exercise which requires gym based equipment to be used has 2 alternative exercises; 1) for individuals with a training partner (**no gym alternative**), and 2) for individuals without a training partner (**No training partner alternative**). For all the band exercises a theraband or tyre tubing may be used.

* Due to greater difficulty with variation of load, referees using buddy resisted and band exercises should perform as many reps as possible and only use the specified rep range as a guide where variable resistance is possible. When performing band exercises always do as many reps as possible and don't use the given reps as guidelines, try and progress each workout.

A weight should be selected for which no more than the prescribed number of reps can possibly be completed (with good form and technique), if the rep range is reached with ease, select a heavier weight.

2. Lower Body Muscle Endurance Program (LBE)						
Rest 90 seconds for the © (core) exercises Rest 45 seconds for all other exercises						
Exercise	OR no gym alternative exercise OR No training partner alternative	Sets	Reps*			
			Week1&2	Week3&4	Week5&6	Week7&8
Warm-up (any cardio machine or light jogging)		1	10 minutes			
Stretch (Back and Upper Body)		1	5 minutes			
Prone Bridge Hold		2	20,20	20,20	20,20	20,20
Walking Lunges (No Added Weight)		2	15,15	15,15	15,15	15,15
Back Squat ©	OR Buddy resisted squat OR Band squat	3	15,15,15	15,12,12	15,12,10	12,10,8
Leg Press ©	OR Buddy resisted Leg Press OR One leg wall squat	3	15,15,15	15,12,12	15,12,10	12,10,8
Lying Leg Curl	OR Hamstring Raise	3	15,15,15	15,12,12	15,12,10	12,10,8
Standing Calf raise	OR Buddy Donkey Calf raise OR single leg calf raises	3	15,15,15	15,12,12	15,12,10	12,10,8
Back Extensions	OR straight back Good Mornings	3	15,15,15	15,12,12	15,15,15	15,15,15
Knee Tucks On Swiss Ball	OR Abdominal Crunches	3	20,20,20	25,25,25	30,30,30	35,35,35
Cool-Down & Stretch		1	5 min.			

Refer to the **EXERCISE DESCRIPTION** section for technique guidance. The **EXERCISE DESCRIPTION** is merely for descriptive purposes; consult with a suitable qualified person (e.g. a biokineticist) to ensure proper technique is used in all the exercises.

Over time one may decide to **change specific exercises** or to swop out exercises for the same body part. This can be done by selecting alternative exercises from the **EXERCISE DESCRIPTION** section.

Each exercise which requires gym based equipment to be used has 2 alternative exercises; 1) for individuals with a training partner (**no gym alternative**), and 2) for individuals without a training partner (**No training partner alternative**). For all the band exercises a theraband or tyre tubing may be used.

* Due to greater difficulty with variation of load, referees using buddy resisted and band exercises should perform as many reps as possible and only use the specified rep range as a guide where variable

resistance is possible. When performing band exercises always do as many reps as possible and don't use the given reps as guidelines, try and progress each workout.

A weight should be selected for which no more than the prescribed number of reps can possibly be completed (with good form and technique), if the rep range is reached with ease, select a heavier weight.

3. Interval Weight Training Circuit 1 (IWTC1)		
Rest 15-30 seconds between exercises in the circuit Rest 3 minutes between sets		
Exercise	Sets	
OR no gym alternative		
Warm-up (any cardio machine)	1	10 minutes
OR Light Running		
Stretch	1	5 minutes
Weight training Circuit	3	(See below)
Weight training Circuit One Set	Shoulder Press	max in 1 min
	OR Band shoulder press	
	Lat Pull Down	max in 1 min
	OR Seated 45° band row	
	Dumbbell Bench Press	max in 1 min
	OR Band chest press	
	Incline Bicep Curls	max in 1 min
	OR Buddy resisted broomstick curl OR Band bicep curl	
Abdominal Crunches	max in 1 min	
Lateral Raises	max in 1 min	
OR One Arm lateral raises with band		
Bike/Rowing/Step-ups/Running/ Boxing	3 min @ 90-95% of max	
Cool-Down & Stretch	5 minutes	

Refer to the **EXERCISE DESCRIPTION** section for technique guidance. The **EXERCISE DESCRIPTION** is merely for descriptive purposes; consult with a suitable qualified person (e.g. a biokineticist) to ensure proper technique is used in all the exercises.

Over time one may decide to **change specific exercises** or to swop out exercises for the same body part. This can be done by selecting alternative exercises from the **EXERCISE DESCRIPTION** section.

Each exercise which requires gym based equipment to be used has an alternative exercise (**no gym alternative**) for those referees without gym equipment.

4. Interval Weight Training Circuit 2 (IWTC2)		
Rest 15-30 seconds between exercises in the circuit Rest 3 minutes between sets		
Exercise	Sets	
OR no gym alternative		
Warm-up (any cardio machine) OR Light Running	1	10 minutes
Stretch	1	5 minutes
Weight training Circuit	3	(See below)
Weight training Circuit One Set	Back Squats/leg press OR One leg wall squats(30s/leg)	max in 1 min
	Push-Ups	max in 1 min
	Step-ups OR Band squat	max in 1 min
	Abdominal Crunches	max in 1 min
	BW Calf Raises	max in 1 min
	Bike/Rowing/Step-ups/Running/Boxing	3 min @ 90-95% of max
Cool-Down & Stretch		5 minutes

Refer to the **EXERCISE DESCRIPTION** section for technique guidance. The **EXERCISE DESCRIPTION** is merely for descriptive purposes; consult with a suitable qualified person (e.g. a biokineticist) to ensure proper technique is used in all the exercises.

Over time one may decide to **change specific exercises** or to swop out exercises for the same body part. This can be done by selecting alternative exercises from the **EXERCISE DESCRIPTION** section.

Each exercise which requires gym based equipment to be used has an alternative exercise (**no gym alternative**) for those referees without gym equipment

5. Fitness Conditioning Session 1 (FCS1)

Endurance

Total Duration: 30-40 minutes (excluding warm-up, cool-down & stretch)

Exercise	Sets		Effort scale
Any cardiovascular cross-training; Bike, Rowing, Treadmill, Road/ Field Running, Stairmaster, Elliptical, rowing etc.	1	30-40 minutes @ low-moderate intensity (see below)	6 no exertion at all
			7 extremely light
			8
			9 very light
			10
			11 light
			12
			13 somewhat hard
			14
			15 hard (heavy)
		16	
		17 very hard	
		18	
		19 extremely hard	
		20 maximal exertion	
Cool-Down & Stretch	1	5 minutes	

Target effort level



6. Fitness Conditioning Session 2 (FCS2)

Mixed intensity endurance

Total Duration: 30 minutes (excluding warm-up, cool-down & stretch)

Exercise	Sets	One repetition =	Effort scale																																	
Any cardiovascular cross-training; Bike, Rowing, Treadmill, Road/ Field Running, Stairmaster, Elliptical, rowing etc.	15	1) 1 minute at 80-90% of maximal effort (see effort table)	<table style="border: none;"> <tr><td rowspan="5" style="font-size: 2em; vertical-align: middle;">}</td><td>6</td><td>no exertion at all</td></tr> <tr><td>7</td><td>extremely light</td></tr> <tr><td>8</td><td></td></tr> <tr><td>9</td><td>very light</td></tr> <tr><td>10</td><td></td></tr> <tr><td rowspan="5" style="font-size: 2em; vertical-align: middle;">}</td><td>11</td><td>light</td></tr> <tr><td>12</td><td></td></tr> <tr><td>13</td><td>somewhat hard</td></tr> <tr><td>14</td><td></td></tr> <tr><td>15</td><td>hard (heavy)</td></tr> <tr><td rowspan="5" style="font-size: 2em; vertical-align: middle;">}</td><td>16</td><td></td></tr> <tr><td>17</td><td>very hard</td></tr> <tr><td>18</td><td></td></tr> <tr><td>19</td><td>extremely hard</td></tr> <tr><td>20</td><td>maximal exertion</td></tr> </table>	}	6	no exertion at all	7	extremely light	8		9	very light	10		}	11	light	12		13	somewhat hard	14		15	hard (heavy)	}	16		17	very hard	18		19	extremely hard	20	maximal exertion
		}			6	no exertion at all																														
7	extremely light																																			
8																																				
9	very light																																			
10																																				
}	11	light																																		
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	13	somewhat hard																																		
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	15	hard (heavy)																																		
}	16																																			
	17	very hard																																		
	18																																			
	19	extremely hard																																		
	20	maximal exertion																																		
2) 1 minute at 35-45% of maximal effort (see effort scale)																																				
*No rest between sets or between reps.																																				
Cool-Down & Stretch	1	5 minutes																																		

7. Fitness Conditioning Session 3 (FCS3)

Mixed intensity endurance
 Total Duration: 30 minutes (excluding cool-down & stretch)

Exercise	Sets	Effort Scale
Any cardiovascular cross-training; Bike, Rowing, Treadmill, Road/ Field Running, Stairmaster, Elliptical, rowing etc.	10	1) 2 minutes at 70-80% maximal effort (see effort scale)
		2) 1 minute at 35-45%
		6 no exertion at all
		7 extremely light
		8
		9 very light
		10
		11 light
		12
		13 somewhat hard
		14
		15 hard (heavy)
		16
		17 very hard
		18
		19 extremely hard
		20 maximal exertion
*Complete all 10 sets in a row without a break		
Cool-Down & Stretch	1	5 minutes

8. Fitness Conditioning Session 4 (FCS4)

Mixed intensity endurance

Total duration: 20 minutes (excluding cool-down & stretch)

Exercise	Sets	Effort Scale
Any cardiovascular cross-training; Bike, Rowing, Treadmill, Road/ Field Running, Stairmaster, Elliptical, rowing etc.	4	1) 1 minute 100% maximal effort
		2) 20s REST
		3) 1 minute 90% maximal effort
		4) 40s rest
		5) 1 minute 80% maximal effort
		6) 60s rest
		6 no exertion at all
		7 extremely light
		8
		9 very light
		10
		11 light
		12
		13 somewhat hard
		14
		15 hard (heavy)
		80% 16
		17 very hard
		90% 18
		19 extremely hard
		100% 20 maximal exertion
*Complete 3 sets in a row without a break		
Cool-Down & Stretch	1	5 minutes

9. Fitness Conditioning Session 5 (FCS5)

Mixed intensity endurance

Total duration: 42 minutes (excluding cool-down & stretch)

Exercise	Sets	Effort scale
<ul style="list-style-type: none"> 20 min Treadmill : 4 min at 10km/hr then 1 min at 10km/hr followed by 1 min at 14km/hr (alternating 1 min easy 1min hard until you reach 20min) 1min break Stairmaster: Manual (80rpm) easy 10min level 4. 1min break Cycle: 10 min: 1min level 4 alternate with 1 min level 14 standing 70 plus rpm 	1	6 no exertion at all 7 extremely light 8 9 very light 10 11 light 12 13 somewhat hard 14 15 hard (heavy) 16 17 very hard 18 19 extremely hard 20 maximal exertion
Target effort level for the session {		
Cool-Down & Stretch	1	5 minutes

10. Fitness Conditioning Session 6 (FCS6)

Endurance

Total duration: 17-25 minutes (excluding cool-down & stretch)

Exercise	Sets	Effort Scale
Run a 5km time trial or as far as possible in 25 minutes	1	6 no exertion at all
		7 extremely light
		8
		9 very light
		10
		11 light
		12
		13 somewhat hard
		14
		15 hard (heavy)
		16
		17 very hard
		18
		19 extremely hard
20 maximal exertion		
Cool-Down & Stretch	1	5 minutes

Target effort level

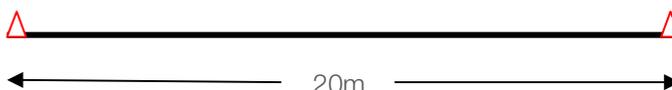


11. Field session 1 (FS1)

Mixed Speed & Intensity

Exercise

- Set up two beacons on the rugby field 20m apart.
- Running from the 0m mark to the 20m mark is considered as one shuttle.
- Run 10 shuttles (200m) in the time allocated below. Rest for the same amount of time between each set of 10
- The number of sets one is required to run will increase over time
- Week 1-2 (6 sets of 10 shuttles in 60 sec each)
- Week 3-4 (8 sets of 10 shuttles in 60 sec each)
- Week 5-6 (8 sets of 10 shuttles in 55 sec each)
- Week 7-8 (8 sets of 10 shuttles in 52 sec each)



Cool-Down & Stretch

1 5 minutes

12. Field session 2 (FS2)

Mixed Speed & Intensity

Exercise

Equipment needed: Bleep
tape, tape recorder
measuring tape and cones.

- Warm up and stretch.
- Fast forward the tape to level 10 (shuttle 82). Mark out 20m. The session starts on shuttle 82 where the referees run 2 consecutive shuttles and then rest for 1 shuttle. This is a 2:1 work rest ratio. This is a maximal fatigue fitness session. Carry on until referees fall out



Cool-Down & Stretch

1

5 minutes

13. Field Session 3 (FS3) : Pyramid Run

Endurance

*Sufficient Warm Up Essential

Starting on the try line, run at maximal intensity to the 22m and back, the halfway line and back, the opposite 22m and back and then the opposite try line and back. Total distance; 500m

Time the total duration of the run and try not to increase the time of completion through the drill

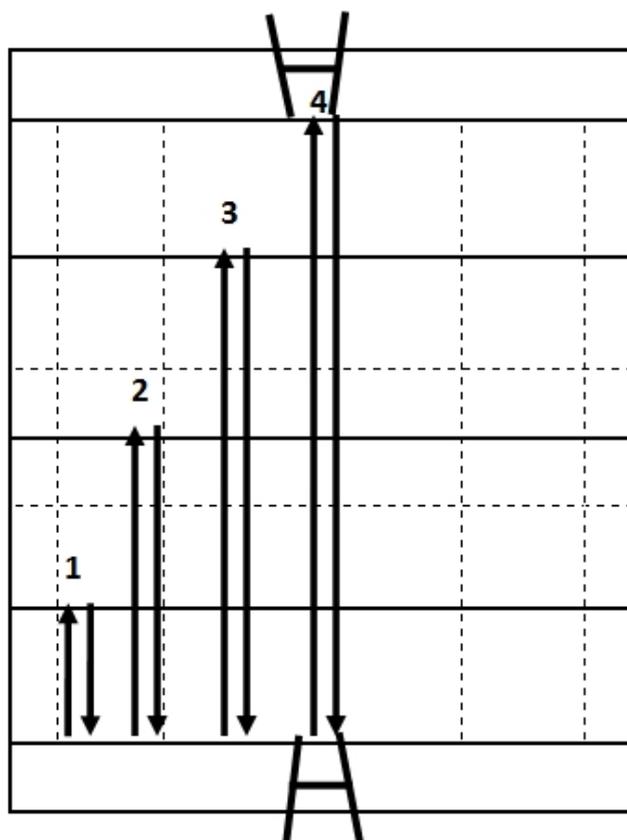
Target Time:

80-95* seconds

*These times should be reduced as the individual gets fitter

Sets 2-4*; 2-4 minute rest between sets

*Perform the desired number of sets, depending on the other conditioning drills in the specific session and the desired volume of the training session.



Cool-Down & Stretch

1

10 minutes

15. Field Session 5 (FS5): Fartlek Run

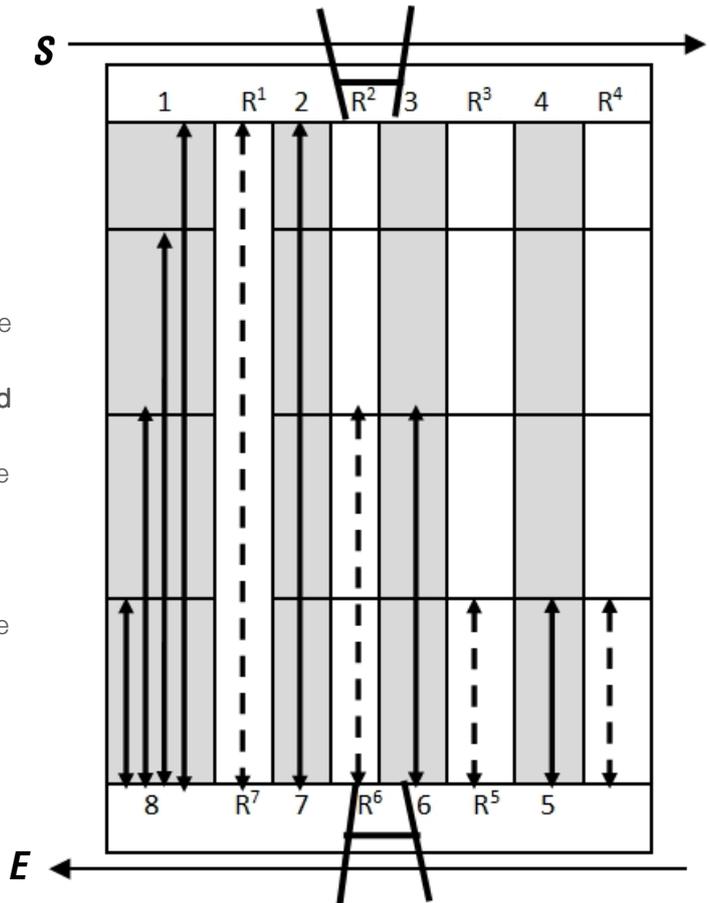
Mixed Speed & Intensity

*Sufficient Warm Up Essential

Starting on the try-line perform the following;

- 1- A maximal intensity pyramid (see Pyramid Run – FS3)
R1- Recovery – slow jog to the opposite try line and back.
- 2- A maximal sprint to the opposite try line and back.
R2- Recovery – slow jog to the opposite half way line and back.
- 3- A maximal run to the half way line and back.
R3- Recovery – slow jog to the 22m line and back.
- 4- A maximal sprint to the 22m line and back.
R4- Recovery – slow jog to the 22m line and back.
- 5- Same as 4.
R5- Same as R4.
- 6- Same as 3.
R6- Same as R2.
- 7- Same as 2.
R7- Same as R1.
- 8- Same as 1.

Referees start on the bottom of the figure; **S** (starting point) and **E** (end point) assists in following 1→8.



The complete drill = 1 Set: Perform 1-3* sets per session; 3-5 minute rest between sets

*Perform the desired number of sets, depending on the other conditioning drills in the specific session and the desired volume of the training session.

Cool-Down & Stretch

10 minutes

16. Field Session 6 (FS6): Snake Run

Speed Endurance

*Sufficient Warm Up Essential

Starting on the corner of the deadball line and the touch line sprint at 90% along the deadball line, at the opposite touch line rest for 15 seconds while slowly walking to the try line, complete this sprint walk/recover cycle till you get to the far corner of the touch and deadball lines

(See Right for **EXERCISE DESCRIPTION**)

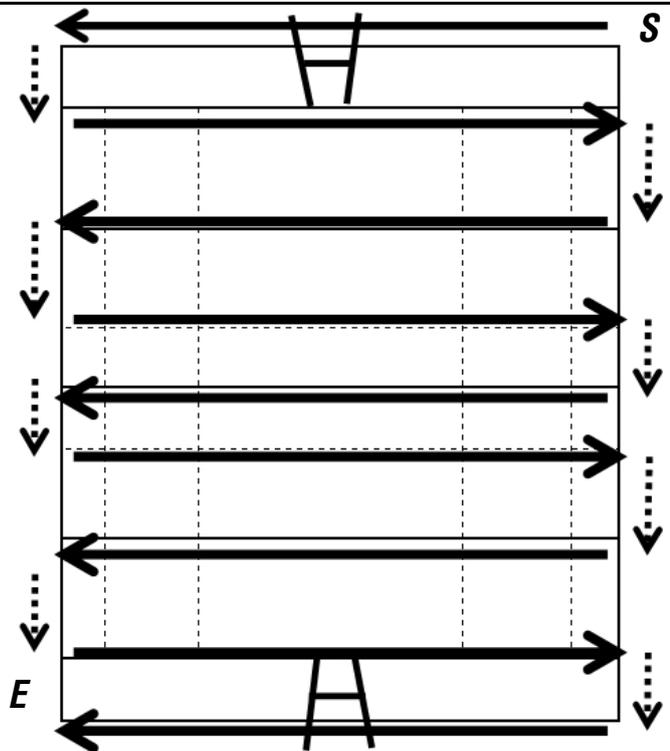
Key:

Solid arrows: Sprint 90% should be completed between 10-15 seconds

Dashed arrows: walk/recover for 15 seconds

Sets 2-5*; 2-3 minute rest between sets

*Perform the desired number of sets, depending on the other conditioning drills in the specific session and desired volume of training.



S= Starting point

E= End point

Cool-Down & Stretch

1

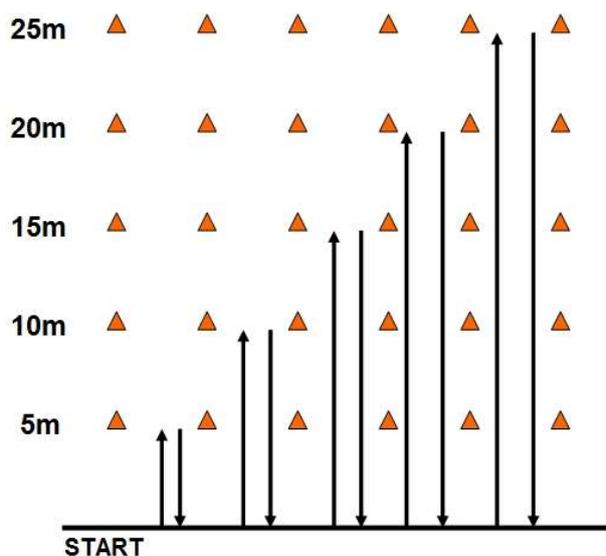
10 minutes

17. Field Session 7 (FS7): 25m Shuttles

Interval Match Specific Training

*Sufficient Warm Up Essential

- Mark out 5m intervals up to 25m (as shown in the diagram) with cones.
- Run at 90% of maximal pace to the 5m and back, the 10m and back, the 15m and back, the 20m and back and lastly the 25m and back.
- The Drill should be completed in 30-35 seconds
- Rest for 40 seconds before starting the next rep.
- Number of repetitions may range from 2-10 depending on the required workload.
- Progression example
 - Week 1-2
(5 sets of 5m shuttles in 35 sec)
 - Week 3-4
(7 sets of 5m shuttles in 35 sec)
 - Week 5-6
(6 sets of 5m shuttles in 30 sec each)
 - Week 7-8
(7 sets of 5m shuttles in 30 sec each)



Cool-Down & Stretch

10 minutes

EXERCISE DESCRIPTION

Chest Muscle Exercises:

1. Flat Bench Press
2. Flat Dumbbell Press
3. Incline Barbell Press
4. Incline Dumbbell Press
5. Flat Dumbbell Flyes
6. Cable Flyes
7. Push-Ups
8. Incline Push-ups (Swiss ball + Bench)
9. Band Chest Press
10. Buddy Resisted Push-ups
11. Buddy Resisted Incline Push-ups
12. Rope Flyes
13. Push-ups On Knees

Back Muscle Exercises:

1. Bent Over Row
2. Wide-Grip Pull-up
3. Underhand Chin-Up
4. Lat Pulldown
5. 30° Lat Pulldown
6. 45° Row
7. Low Pulley Row
8. One-Arm Dumbbell Row
9. Back Extension
10. Buddy Resisted Broomstick Row
11. Buddy Resisted Rope Row
12. Buddy Resisted One Arm Row
13. Seated 45° Band Row
14. Bent Over Band Row
15. Alternate Arm/Leg Raise (on Swiss ball)
16. Straight Back Good Mornings

Shoulder Exercises:

1. Dumbbell Shoulder Press
2. Arnold Shoulder Press
3. Dumbbell Lateral Raise
4. Bent Over Reverse Fly
5. Dumbbell Shrug
6. One Arm Lateral Raises with Band
7. Band Shoulder Press
8. Band Reverse Flyes
9. Upright Row with Band
10. Buddy Assisted Hand Stand Press
11. Buddy Resisted Broomstick Press
12. Buddy Resisted Lateral Raises
13. Buddy Resisted Shrugs
14. Buddy Resisted Rope Reverse Fly

Arm Exercises (Bicep and Tricep):

1. Straight Bar Bicep Curl
2. Standing Cable Tricep Extensions
3. Close Grip Bench Press
4. Preacher Curls
5. Lying Tricep Extensions
6. Alternating Bicep DB curl
7. Dips
8. Bench/Chair Tricep Dips
9. Incline Bicep Curls
10. Band Bicep Curls
11. Lying Band Tricep Extensions
12. Buddy Resisted Diamond Push-ups
13. Buddy Resisted Broomstick Curls
14. Buddy Resisted Rope (Hammer) Curls
15. Buddy Resisted Rope Extensions
16. Upright Band Tricep Extensions

Leg Exercises (Quadriceps, Hamstrings and calves):

1. Bent Leg Deadlift
2. Back Squat
3. Walking Lunges
4. Front Squat
5. Leg Press
6. Lying Leg Curl
7. Standing Calf Raise
8. Single Leg Calf Raises
9. Lying Hamstring Curls (on Swiss Ball)
10. Dumbbell Step-Ups
11. Leg Extensions
12. Hamstring Raise
13. Standing Hamstring Curls
14. Lunges
15. Seated Leg Press
16. One Leg Quarter Squat with Stabilisation
17. Body Weight Squats
18. Chair Squats
19. Inner & Outer Thigh with Band
20. Hip Flexion with Band
21. Buddy Resisted Squats
22. Buddy Resisted Step Ups
23. Buddy Donkey Calf Raises
24. One Leg Wall Squats
25. Buddy Resisted Leg Press
26. Band Squat

Abdominal Exercises:

1. Abdominal Crunch (straight)
2. Side to Side Crunches
3. Touching Toes Crunches
4. Knee Tucks on Swiss Ball
5. Prone Bridge Hold
6. Prone Hold on Swiss Ball
7. Diagonals on Swiss Ball with Medicine Ball

Rehabilitation and Prevention Exercises:

1. Shoulder Step-ups
2. Prone Neck Lifts
3. Serratus Press
4. Band Prone Neck Extension
5. Internal and External Shoulder Rotation
6. Wrestler's Bridge
7. Alt Leg Raise Bridge on Ground or Swiss Ball
8. Neck Holds
9. One Foot Balance on Balance Ball

Power Exercises:

1. Power Clean
2. Hanging High Pull
3. Hang Clean & Jerk
4. Jump Squat (BW or Weighted)
5. Single Leg Box Jumps
6. Smith Machine Bench Throws
7. Push-Press
8. Lying Medicine Ball Throws
9. Cable Push Pull
10. Squat Thrusts
11. Clap Push-ups
12. Medicine Ball Plyometric Push-ups

SAQ Exercises (Speed, Agility and Quickness):

1. Speed Ladder 1
2. Speed Ladder 2
3. Speed Ladder 3
4. Speed Ladder 4
5. Speed Ladder 5
6. Illinois Agility Run
7. Run Through Mini Hurdles
8. Body Lean Accelerations
9. Hollow Sprints
10. Sprints
11. Rolling Sprints

CHEST MUSCLE EXERCISES:

1. Flat Bench Press:

- Lie on a flat bench with eyes in line with the support arms of the bench.
- Grip should be slightly wider than shoulder width.
- Take the bar off the supports and move it so that it is in line with the chest (start position).
- Lower the bar to the chest at approximately nipple level (Midpoint).
- From the Midpoint push the bar back up to the start position.
- DO NOT arch the back or move your feet during the lift.

START:



MIDPOINT:



2. Flat Dumbbell Press:

- Same movement as the bench press just performed with dumbbells.
- If needed, ask a spotter to assist in getting the dumbbells off your chest into the start position.
- Lower the dumbbells to in line with the nipples (Midpoint).
- Push the dumbbells back up to the start position.
- Do not arch your back, or move your feet during the lift.

START:



MIDPOINT:



3. Incline Barbell Press:

- Same movement as the bench press, just performed on an incline bench

START:



MIDPOINT:



4. Incline Dumbbell Press:

- If needed, ask a spotter to assist in getting the dumbbells off your chest into the start position.
- Lower the dumbbells to in line with the nipples (Midpoint).
- Push the dumbbells back up to the start position.
- Do not arch your back, or move your feet during the lift.

START:



MIDPOINT:



5. Flat Dumbbell Flyes:

- Grasp two dumbbells and assume the start position on a flat bench.
- Lower the dumbbells, keeping them parallel in a wide arc until they are in line with the chest or shoulders (Midpoint).
- From the Midpoint, contract the chest muscles to push the dumbbells back to the start position in a wide arc.

START:



MIDPOINT:



6. Cable Flyes:

- Take both handles from the Cable crossover machine and draw them together, assuming the start position.
- While keeping the rest of the body in exactly the same position move your hands outwards in a wide arc until the hands are in line with the chest (Midpoint).
- From the Midpoint, contract the chest muscles to push the hands back to the start position in a wide arc.
- Keep the same angle in the elbows throughout the movement.

START:



MIDPOINT:



7. Push-ups:

- Maintain a straight back and body throughout the exercise
- Do not hollow the back.
- From the start position push your body up to the midpoint and then return to the start position, without letting your chest touch the floor
- Your chest should stop 5 cm from the ground
- There are 3 possible hand positions see below.

Standard push-up:

START:



MIDPOINT:



Hands 5cm apart push-up:

START:



MIDPOINT:

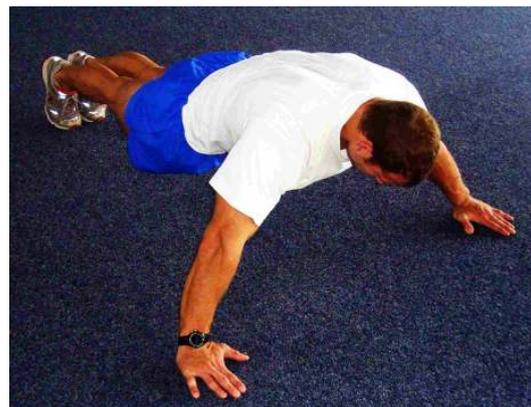


Hands 10cm wider than normal push-up:

START:

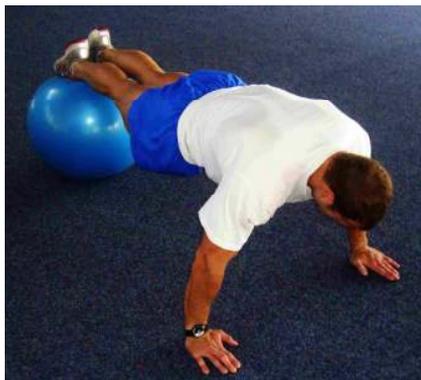


MIDPOINT:



8. Incline Push-ups (Swiss ball + Bench)

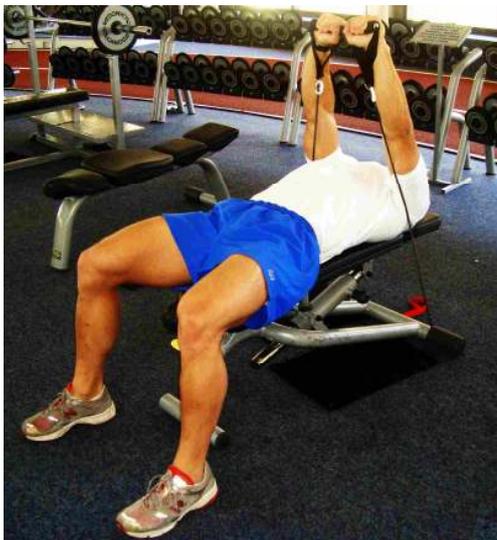
- Maintain a straight back and body throughout the exercise.
- Do not hollow the back.
- From the start position push your body up to the midpoint and then return to the start position, without letting your chest touch the floor.
- Your chest should stop 5cm from the ground.
- The exercise may be performed with leg elevated either on a box/ chair/ bed/ exercise ball.



9. Band Chest Press

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your body or under the bench you lying on and perform as if you are doing flat dumbbell press
- From the start position, lower the tubing to in line with the nipples (Midpoint)
- Push the band back up to the start position
- Do not arch your back, or move your feet during the movement

START:



MIDPOINT:



10. Buddy resisted push-ups

- Perform a push-up as demonstrated previously.
- A training partner applies resistance to your upper back, in line with your shoulders.
- Maintain a straight back and body throughout the exercise and avoid hollowing the back.
- The training partner should only apply enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.



11. Buddy resisted incline push-ups

- Perform a incline push-up as demonstrated above
- A training partner applies resistance to your upper back, in line with your shoulders.
- Maintain a straight back and body throughout the exercise and avoid hollowing the back.
- The training partner should only apply enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.



12. Rope Flyes

- Attach a rope around a well secured pole or tree.
- Grip the rope as shown in the start position with chest muscle tightly squeezed.
- Lower your body with caution to a position where you will be able to push yourself back up to the start position.(Midpoint)
- At the midpoint push your body back up to the start position using your chest muscles
- Resistance may be varied by leaning further forward and by changing the distance ones feet are from the pole.

START:

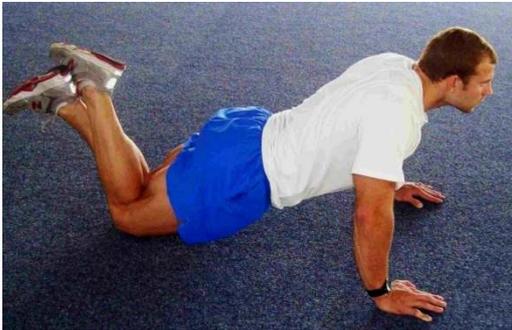


MIDPOINT:



13. Push-ups on knees

- Perform in exactly the same way as a push-up, described earlier
- Only difference is that your knees, and not your feet make contact with the floor



BACK MUSCLE EXERCISES

1. Bent over row

- Assume a shoulder width stance and grip the bar with an overhand grip slightly wider than shoulder width.
- A deadlift technique (see deadlift) should be used to initially lift the weight off the floor into the start position.
- Ensure that the spine is straight.
- Pull the bar up towards the lower chest or upper abdomen using the back muscles while pointing the elbows upwards (Midpoint).
- Lower the weight back to the start position.
- Ensure that the torso, knees and back are kept in the same position throughout the lift.

START:



MIDPOINT:



2. Wide-Grip Pull-up

- Use a step to reach a Pull-up bar and grip it with a wide overhand grip (start position).
- From this hanging position pull your body upwards until your chin is in line with the bar (Midpoint).
- Lower yourself in a controlled manner back down to the start position with arms fully extended.
- Keep your body still throughout the exercise.
- Once the exercise becomes easy to perform it may be made more challenging through attaching additional weight (weight plate or dumbbell) to your waist.

START:



MIDPOINT:



3. Underhand Chin-Up

- Execution is exactly the same as the Wide-Grip Pull-up except that an underhand (palms facing body) close grip is used.
- Once the exercise becomes easy to perform it may be made more challenging through attaching additional weight (weight plate or dumbbell) to your waist.

START:



MIDPOINT:



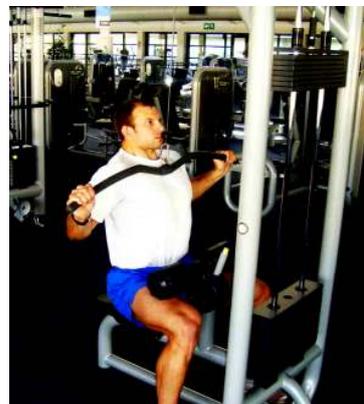
4. Lat Pull down

- Grasp the lat Pull-Down bar with a overhand grip (start position) and position thighs under the thigh pads with feet flat on the ground and arms extended.
- Pull the bar towards the upper chest (Midpoint)
- Once at the midpoint allow the elbows to extend back to the start position in a controlled manner.
- Keep the torso in the same position throughout the movement; do not jerk the weight down.

START:



MIDPOINT:



5. 30° Lat Pulldown

- Execution is exactly the same as the pulldown, except that the body is leaned backwards by roughly 30° throughout the exercise.
- Keep the torso in the same position throughout the exercise and do not jerk the weight down.

START:



MIDPOINT:



6. 45° Row

- Use a high pulley with a close grip handle and lean the torso 45° backwards (start position).
- While maintaining a straight back pull the handle toward the lower chest or upper abdomen (Midpoint)
- Once at the midpoint allow the elbows to extend back to start position in a controlled manner.
- Keep the torso in the same position throughout the movement; do not jerk the weight down.

START:



MIDPOINT:



7. Low Pulley Row

- Use a low Pulley with a close grip handle, keep the back straight (start position).
- While maintaining a straight back pull the handle toward abdomen (Midpoint).
- Once at the midpoint allow the elbows to extend back to start position in a controlled manner.
- Keep a straight back and do not jerk.

START:



MIDPOINT:



8. One-Arm Dumbbell Row

- Using very similar technique to the low pulley row, grasp a dumbbell while maintaining a straight back (start position)
- Keeping the elbow close to the body, pull the dumbbell up in line with the abdomen. (Midpoint)
- Allow the elbow to extend back to the start position
- Maintain a straight spine throughout the lift.

START:



MIDPOINT:



9. Back Extension

- Maintain a straight body and spine at the start position
- Lower the trunk down through only bending at the hips; keep the back straight while bending forwards (Midpoint).
- Once at the midpoint position straighten the body back to the start position while keeping the back straight.
- Once the exercise becomes easy to perform it may be made more challenging through holding a weight plate against your chest.

START:



MIDPOINT:



10. Buddy resisted broomstick row

- Use a broomstick and rope as indicated in the picture below.
- The training partner grips the ropes firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



11. Buddy resisted rope row

- Use a rope as indicated in the picture below.
- The training partner grips the ropes firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



12. Buddy resisted one arm row

- Use a rope as indicated in the picture below.
- The training partner grips the ropes firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Pull one arm at a time as indicated below while the training partner applies resistance
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



13. Seated 45° band row

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Tie the tubing around a secured pole or tree
- From the start position, pull the tube until the hands are in line with the bellybutton (Midpoint)
- From the midpoint release the tubing slowly back to the start position
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



14. Bent over band row

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tubing under the feet and assume a bent over stance as shown below with back straight
- From the start position, pull the tube until the hands are in line with the bellybutton (Midpoint)
- From the midpoint release the tubing slowly back to the start position
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



15. Alternate arm/leg raise (on Swiss ball)

- Lie in a Swiss ball as shown below.
- Alternate lifting the right arm and left leg (picture on left) and the left arm and right leg (picture on the right).



16. Straight back good mornings

- Assume a stance as shown below.
- Bend over keeping the back dead straight and knees slightly bent.(Midpoint).
- Return back to the start position.

START:



MIDPOINT:



SHOULDER EXERCISES:

1. Dumbbell Shoulder Press

- Sit on a vertical bench and raise the dumbbells to the start position.
- From the start position lower the dumbbells in a controlled manner until the hands are in line with the ears (Midpoint).
- From the midpoint push the dumbbells back up to the start position.
- Do not arch the back or rise off the seat.

START:



MIDPOINT:



2. Arnold Shoulder Press

- From exactly the same start position as the dumbbell shoulder press, lower the dumbbells while rotating the dumbbells externally until palms are facing the body in line with the chin (Midpoint position).
- Once at the midpoint position push the dumbbells upwards while rotating them internally back up to the start position.

START:



MIDPOINT:



3. Dumbbell Lateral Raise

- Grasp dumbbells and hold them in front of the body keeping the back straight and elbows slightly bent (start position).
- Raise the dumbbells upwards and sideways to in line with the shoulders (Midpoint).
- Lower the dumbbells back to the start position in a controlled manner.
- Do not jerk or bounce during any stage of the exercise.
- Keep a straight back throughout.

START:



MIDPOINT:



4. Bent Over Reverse Fly

- Grasp dumbbells and hold them in front of the body while bending 90° forwards and keeping the back straight (start position).
- Raise the dumbbells upwards and sideways to in line with the shoulders (Midpoint).
- Lower the dumbbells back to the start position in a controlled manner.
- Do not jerk or bounce during any stage of the exercise.
- Keep a straight back throughout.

START:



MIDPOINT:



5. Dumbbell Shrug

- Grasp dumbbells and hold them at the side of the body while keeping the back straight and arms extended (start position).
- Lift the shoulders upwards as far as possible (midpoint)
- Try and hold the shoulder at the midpoint position for a second or two before lowering them down to the start position.
- Do not jerk or bounce during any stage of the exercise.

START:



MIDPOINT:



6. One Arm Lateral Raises With Band

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your foot and grip in your hand
- Raise your arm from the start position to the midpoint position without bending your arm
- From the midpoint lower the tubing slowly and controlled back to the start position

START:



MIDPOINT:



7. Band Shoulder Press

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your feet and grip in your hands as shown in the start position below.
- Raise your arms from the start position to the midpoint position.
- From the midpoint lower the tubing slowly and controlled back to the start position

START:



MIDPOINT:



8. Band Reverse Flyes

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your feet and grip in your hands as shown in the start position below.
- Raise your arms from the start position to the midpoint position without bending your arms
- From the midpoint lower the tubing slowly and controlled back to the start position

START:



MIDPOINT:



9. Upright Row With Band

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your feet and grip in your hands as shown in the start position below.
- Raise your arms from the start position to the midpoint position.
- From the midpoint lower the tubing slowly and controlled back to the start position.

START:



MIDPOINT:



10. Buddy Assisted Hand Stand Press

- With assistance from a training partner assume a hand stand position with arms extended while your training partner is keeping you upright (Start)
- Your buddy should assist by lifting a portion of your bodyweight to make the exercise easier and to allow the prescribed number of repetitions to be performed.
- Bend your arms until your head touches the ground (Midpoint).
- From the midpoint position, press back to the start.

START:



MIDPOINT:



11. Buddy Resisted Broomstick Press

- Use a broomstick as indicated in the picture below.
- The training partner grips the broomstick firmly and presses downwards, only enough resistance should be applied to restrict the maximum number of repetitions to the number prescribed in the workout.
- Lower the broomstick from the start position to the top of the head (midpoint), and then push back up to the start position.

START:



MIDPOINT:



12. Buddy Resisted Lateral Raises

- A training partner applies resistance to the elbow.
- Raise the arms from the start position to the midpoint position by pressing against the hands of the training partner applying resistance.
- The training partner remains applying pressure while the arms are lowered in a slow controlled movement back to the start position.

START:



MIDPOINT:



13. Buddy Resisted Shrugs

- Grip your training partner as indicated in the picture below under his armpits.
- The training partner should have his feet on the ground in front of him.
- Pull the shoulders upwards as far as possible (midpoint)
- Try and hold the shoulder at the midpoint position for a second or two before lowering them down to the start position.
- Do not jerk or bounce during any stage of the exercise
- Maintain a straight back throughout the exercise.

START:



MIDPOINT:



14. Buddy Resisted Rope Reverse Fly

- Grip the rope as shown in the pictures below.
- The training partner grips the ropes firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Raise the arm from the start position to the midpoint position and back down in a slow controlled movement.
- Keep the back straight throughout the exercise.

START:



MIDPOINT:



ARM EXERCISES (BICEP AND TRICEP MUSCLES):

1. Straight Bar Bicep Curl

- Grip a barbell with a straight back as indicated in the start position
- Curl the weight up to the midpoint position by only using the bicep muscle.
- Keep the torso in the same position throughout the movement, do not jerk the weight up.
- Ensure a straight back and slightly bent knees throughout the exercise.

START:



MIDPOINT:



2. Standing Cable Tricep Extensions

- Face high pulley and grasp cable attachment with overhand narrow grip as shown in the start position
- Extend the arm to the midpoint position while maintaining an upright posture
- From the midpoint position return to the start position in a slow controlled motion

START:



MIDPOINT:



3. Close Grip Bench Press

- Lie on a flat bench with eyes in line with the support arms of the bench.
- Grip the bar with hand shoulder width apart.
- Take the bar off the supports and move it so that it is in line with the chest (start position).
- Lower the bar to the chest at approximately nipple level (Midpoint).
- From the Midpoint push the bar back up to the start position.
- DO NOT arch the back or move your feet during the lift.

START:



MIDPOINT:



4. Preacher Curls

- Grip an EZ curl bar (as indicated in picture below) with the little fingers slightly lower than the thumbs, with arm extended (Start position)
- Curl the bar, using only the bicep muscles up to the midpoint position.
- From the midpoint position lower the weight back to the start position in a slow controlled movement.

START:



MIDPOINT:



5. Lying Tricep Extensions

- Grip an EZ bar and assume the position indicated in the start position with arms fully extended
- Lower the bar down slowly and stop it about 5cm's from the forehead (Midpoint)
- From the midpoint position press the weight back up to the start position.
- Do not arch the back or jerk the weight up.

START:



MIDPOINT:



6. Alternating Bicep DB Curl

- Grasp 2 dumbbells and assume the position indicated in the pictures below, sitting on a 90° bench.
- Alternate between performing a curl with the left and the right arm.
- Move the dumbbell up and down in a controlled motion
- Do not swing or jerk the weight up
- Maintain a straight back throughout the exercise.



7. Dips

- Assume the start position on a shoulder width dip bar.
- Lower the body from the start position to the midpoint position in a controlled motion.
- Press the body from the midpoint back up to the start position.
- Do not jerk or swing the body while performing the exercise

START:



MIDPOINT:



8. Bench/Chair Tricep Dips

- Bench/chair dips may be performed in the same way as normal dips, a chair or bench is just used instead of a dip bar

START:



MIDPOINT:



9. Incline Bicep Curls

- Grasp 2 dumbbells and assume the position indicated in the pictures below, sitting on a incline bench.
- Curl both dumbbells from the start position up to the midpoint position.
- Once at the midpoint position lower the weight down in a slow controlled motion down to the start position.
- Do not swing or jerk the weight up
- Maintain a straight back throughout the exercise.

START:



MIDPOINT:



10. Band Bicep Curls

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your feet and grip in your hands as shown in the start position below.
- Curl the resistive tubing from the start position to the midpoint position.
- From the midpoint lower the tubing slowly and controlled back to the start position
- Maintain a straight upright back throughout the movement.

START:



MIDPOINT:



11. Lying Band Tricep Extensions

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Place the tube under your body or under the bench as indicated in the start position
- Lower the hands down to the midpoint position, keeping the elbows in the same position.
- From the midpoint position straighten the arms back to the start position

START:



MIDPOINT:



12. Buddy Resisted Diamond Push-Ups

- Perform a push-up with the hands together forming a diamond between the thumbs and index fingers.
- A training partner applies resistance to your upper back, in line with your shoulders.
- Maintain a straight back and body throughout the exercise and avoid hollowing the back.
- The training partner should only apply enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout

START:



MIDPOINT:



13. Buddy Resisted Broomstick Curls

- Use a broomstick as indicated in the picture below.
- The training partner grips the broomstick firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Keep the back straight throughout the exercise.
- Perform a bicep curl as previously explained.

START:



MIDPOINT:



14. Buddy Resisted Rope (Hammer) Curls

- Use a rope as indicated in the picture below.
- The training partner grips the rope firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Keep the back straight throughout the exercise.
- Perform a bicep curl as previously explained.

START:



MIDPOINT:



15. Buddy Resisted Rope Extensions

- Use a rope as indicated in the picture below.
- The training partner grips the rope firmly and only applies enough resistance to restrict the maximum number of repetitions to the number prescribed in the workout.
- Keep the back straight throughout the exercise.
- Perform a standing tricep extension as previously explained.

START:



MIDPOINT:



16. Upright Band Tricep Extensions

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Attach the tube around a secured object as shown below.
- Extend the arm from the start position to the midpoint position.
- From the midpoint bend the arms back to the start position. Keep the elbows in the same position throughout the exercise.
- Maintain a straight upright back throughout the movement.

START:



MIDPOINT:



LEG EXERCISES (QUADRICEPS, HAMSTRINGS AND CALVES):

1. Bent Leg Deadlift

- Stand with feet flat on the ground and placed between hip and shoulder width apart with toes pointed slightly outward.
- Grasp the bar with a closed alternated grip (one hand over and one hand under) slightly wider than shoulder width while keeping the shoulders above the hips and back straight and as upright as possible. (start position)
- In the start position the torso should be as upright as possible to avoid putting strain on the back.
- From the start position lift the bar off the floor by extending the hips and knees. Keep the bar as close to the body as possible and pull the weight until the body is erect. (Midpoint)
- From the midpoint, lower the weight down slowly in a controlled manner with exactly the same body position used to lift the weight.
- Maintain a flat back body position with chest up and out throughout the exercise.

START:



MIDPOINT:



2. Back Squat

- Grasp the bar behind the neck with a closed grip
- Lift the elbows up slightly to create a shelf for the bar with the upper back and shoulder muscles
- Tilt the head upwards slightly
- Position the feet shoulder width apart with toes pointed slightly outwards (start position)
- Tilt the pelvis forward (i.e. press the bum out) and allow the hips and knees to slowly bend, lower the weight while keeping the back flat and head and elbows up. Do not round the back at any stage.
- Continue flexing the hips and knees until the thighs are parallel to the floor (Midpoint)
- From the midpoint, extend the hips and knees while maintaining the same body position as when lowering the weight, with back flat, head and elbows up.
- Continue extending the hips and knees until the start position is reached.
- Never bend the back while performing a squat.
- If you are not able to maintain a straight back when squatting all the way down (thigh parallel), only go as low as you can with your back straight.

START:



MIDPOINT:



3. Walking Lunges

- Walking lunges may be performed with or without weights
- If weighted lunges are performed grasp the bar with a closed grip behind the neck as when performing a squat (start)
- Step forward and lower the knee of the back leg until it is 5cm from the ground (midpoint)
- Forcefully drive upwards and forwards with both legs and return to the start position.
- Repeat as explained above for the opposite leg.

START:



MIDPOINT: R LEG



START:



MIDPOINT: L LEG



4. Front Squat

- As opposed to the back squat the bar rests on the top of the shoulders and clavicle in front of the head.
- The bar may either be gripped with arms crossed or with a normal shoulder width grip.
- Maintain elbows high with upper arms parallel to the ground.
- Position the feet shoulder width apart with toes pointed slightly outwards (start)
- Tilt the pelvis forward (i.e. press the bum out) and allow the hips and knees to slowly bend, lower the weight while keeping the back flat and head and elbows up. Do not round the back at any stage.
- Continue flexing the hips and knees until the thighs are parallel to the floor (Midpoint)
- From the midpoint, extend the hips and knees while maintaining the same body position as when lowering the weight, with back flat, head and elbows up.
- Continue extending the hips and knees until the start position is reached.
- Never bend the back while performing a squat.
- If you are not able to maintain a straight back when squatting all the way down (thigh parallel), only go as low as you can with your back straight.

START:



MIDPOINT:



5. Leg Press

- Sit in the machine with lower back, hips and buttocks pressed into the machine
- Place feet on the platform hip width apart. (Start position)
- Remove the catches from the foot platform and lower the weight in a slow controlled motion until the upper thigh and lower leg is at a 90° angle. (Midpoint)
- Once at the midpoint drive the weight back up to the start position.
- Ensure that the back remains in firm contact with the back rest.

START:



MIDPOINT:



6. Lying Leg Curl

- Assume the position as indicated in the start position on the lying hamstring curl machine.
- Maintain a slight bend in the knee at the start position.
- Curl the lever upwards as far as you can (Midpoint), and then lower it again in a slow controlled manner until the start point is reached.

START:



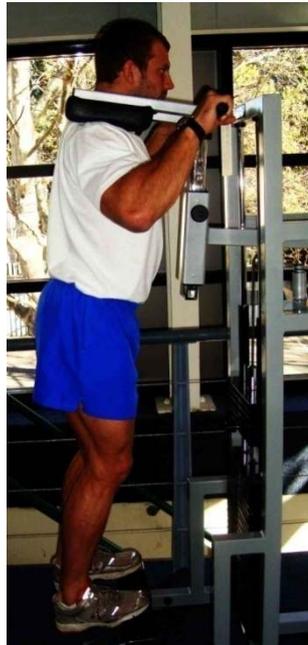
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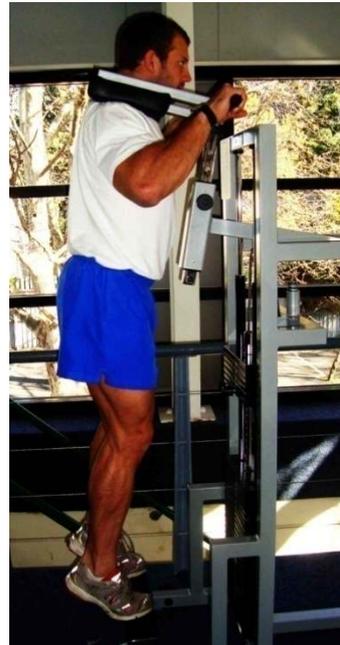
7. Standing Calf Raise

- Assume the position as indicated in the start position on the standing calf raise machine.
- Maintain a slight bend in the knee and a straight back throughout the exercise.
- Lift the weight from the position where the calf is fully extended, i.e. heel lower than the ankle (Start position) to a position where the calf muscle is fully flexed (Midpoint)
- Once at the midpoint, lower back down to the start position in a slow controlled movement.

START:



MIDPOINT:



8. Single Leg Calf Raises

- As opposed to the standing calf raise, perform only one leg at a time, using your bodyweight as resistance. No machine is required.
- Place the ball of the foot on the edge of a step with heel lower than the ankle (Start position)
- Lift the body upwards by flexing the calf muscle.
- Once at the midpoint, lower back down to the start position in a slow controlled movement.

START:



MIDPOINT:



9. Lying Hamstring Curls (On Swiss Ball)

- Assume the start position as indicated below, with feet in a swiss ball, body in a straight line and only the shoulders making contact with the ground
- While keeping hips off the ground pull the feet on the ball towards the buttock (Midpoint).
- From the midpoint position, straighten the legs back to the start position in a slow controlled movement.

START:



MIDPOINT:



10. Dumbbell Step-Ups

- Grasp dumbbells in either hand and place one leg on a step or bench roughly 45cm high (Start)
- Drive off the leg on the step by extending the hip and knee. Only use the leg on the step to generate the force required to perform the step-up.
- Once at the midpoint, lower back down to the start position in a controlled movement.
- Perform the same amount of repetitions for each leg.

START:



MIDPOINT:



11. Leg Extensions

- Assume the position as indicated in the start position on the leg extension machine.
- Straighten the legs until they are fully extended (Midpoint)
- Once at the midpoint, lower back down to the start position.

START:



MIDPOINT:



12. Hamstring Raise

- Assume the start position as indicated below, with one foot on a step or chair
- Raise the body using the foot on the chair until the body is in a straight line. (Midpoint)
- From the midpoint position lower the body back down to that start position in a slow controlled movement.
- Perform the same number of repetitions with each leg

START:



MIDPOINT:



13. Standing Hamstring Curls

- Assume the position as indicated in the start position on the standing leg curl machine.
- Curl the legs up towards the buttock until full flexion is reached (Midpoint)
- Once at the midpoint, lower back down to the start position in a slow controlled movement

START:



MIDPOINT:



14. Lunges

- Start in an upright body position as indicated in the start position below .
- Step forward and lower the knee of the back leg until it is 5cm from the ground. (midpoint)
- Forcefully drive upwards and backwards with the front leg until the start position is reached,
- Perform the same movement with the other leg.
- Completing both legs is one repetition.

START:



MIDPOINT: L



START:



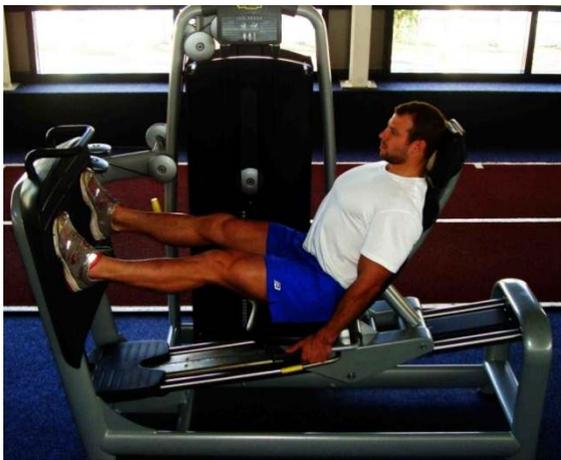
MIDPOINT: R



15. Seated Leg Press

- Sit in the machine with lower back, hips and buttocks pressed into the machine
- Place feet on the platform hip width apart. (Start position)
- Remove the catches from the foot platform and lower the weight in a slow controlled motion until the upper thigh and lower leg is at a 90° angle. (Midpoint)
- Once at the midpoint drive the weight back up to the start position.
- Ensure that the back remains in firm contact with the back rest.

START:



MIDPOINT:



16. One Leg Quarter Squat With Stabilisation

- Stand on one leg and perform a squat, concentrating on keeping your balance
- Squat down as far as possible while maintaining balance (midpoint)
- Perform the same number of reps on each leg

START:



MIDPOINT:



17. Body Weight Squats

- Stand with feet shoulder width apart and squat down until a 90° at the knee joint is reached.
- If one is not able to keep ones balance, place the arms straight out in front of the body to counter balance

START:



MIDPOINT:



18. Chair Squats

- Perform in exactly the same way as the body weight squat.
- Only difference is that a bench or chair is placed under the buttocks
- The buttocks should touch the bench or chair at every repetition

START:



MIDPOINT:



19. Inner & Outer Thigh With Band

- Attach resistant tubing (i.e. bicycle tyre, theraband, toning tube etc.) to a secure object
- For the outer thigh, pull the resistant tubing away from the body (see below)
- For the inner thigh, pull the resistant tubing towards the body (see below)

Outer thigh:

START:



MIDPOINT:



Inner thigh:

START:



MIDPOINT:



20. Hip Flexion With Band

- Attach resistant tubing (i.e. bicycle tyre, theraband, toning tube etc.) to a secure object
- Pull the resistant tubing forwards and upwards by flexing the hip as shown in the picture below

START:



MIDPOINT:



21. Buddy Resisted Squats

- A training partner applies resistance by climbing onto the back of the person performing the exercise as shown in the picture below.
- Perform a squat as previously described
- When no more repetitions are possible, signal to the training partner to dismount.

START:



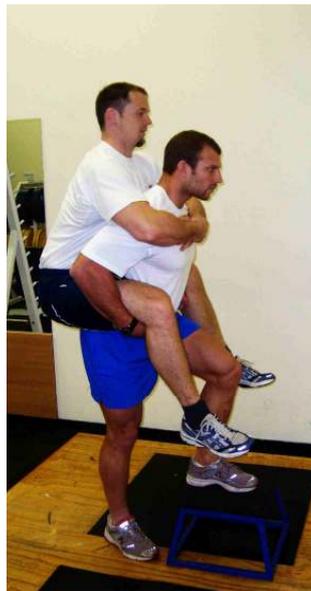
MIDPOINT:



22. Buddy Resisted Step Ups

- A training partner applies resistance by climbing onto the back of the person performing the exercise as shown in the picture below.
- Perform a step-up as previously described. Use a smaller step (roughly 15cm) due to the difficulty in performing a step up with a training partner.
- When no more repetitions are possible, signal to the training partner to dismount.

START:



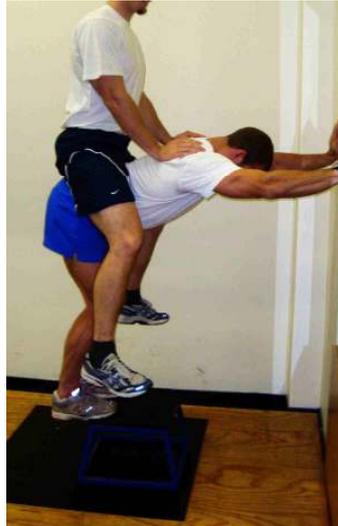
MIDPOINT:



23. Buddy Donkey Calf Raises

- A training partner applies resistance by sitting on the back of the person performing the exercise as shown in the picture below.
- Perform a calf raise as previously described.
- When no more repetitions are possible, signal to the training partner to dismount.

START:



MIDPOINT:



24. One Leg Wall Squats

- Stand on one leg with the back leg against a wall
- Perform a squat on the grounded leg.
- Squat down until a 90° angle between the upper and lower leg is reached.(Midpoint)
- From the midpoint position extend the grounded leg until the start position is reached
- Perform the same number of repetitions on each leg

START:



MIDPOINT:



25. Buddy Resisted Leg Press

- Assume the start position as shown below, the training partner leans forward and his weight is supported by the person performing the leg press
- While maintaining contact with the floor lower the training partner until the angle between the thighs and lower leg is 90° (Midpoint)
- From the midpoint extend the legs at the hips and knees until the start position is reached
- If one is able to reach, hold the hands of the training partner to assist stability.

START:



MIDPOINT:



26. Band Squat

- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.)
- Hold the resistive tube as shown below and perform a squat as previously described

START:



MIDPOINT:



ABDOMINAL EXERCISES:

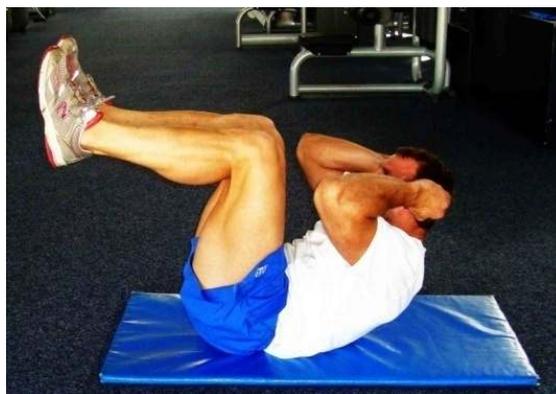
1. Abdominal Crunch (Straight)

- Assume the starting position as indicated below.
- Crunch upwards until the elbows touch the knees (Midpoint), briefly hold this position before returning to the start position.
- Do not jerk the arms to help start the exercise movement

START:



MIDPOINT:



2. Side To Side Crunches

- Assume the starting position as indicated below.
- Crunch upwards sideways until one elbow touches the opposite knee (Midpoint), briefly hold this position before returning to the start position.
- Once the movement is performed on each side one repetition is complete
- Do not jerk the arms to help start the exercise movement

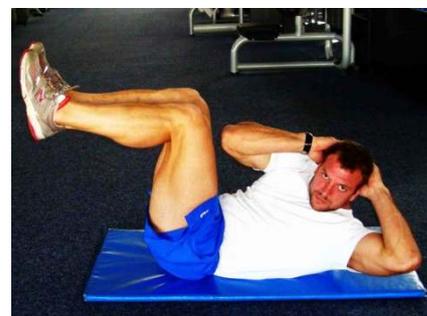
START:



MIDPOINT: 1



MIDPOINT: 2



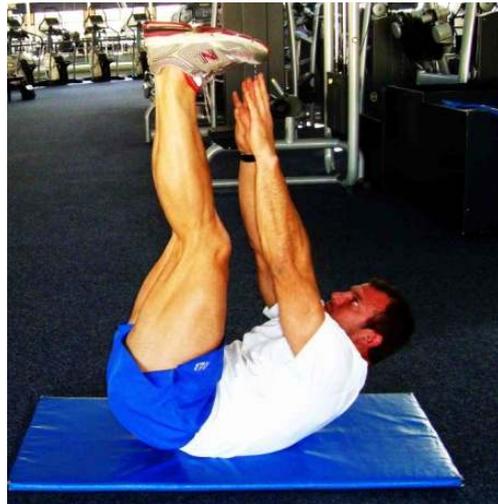
3. Touching Toes Crunches

- Assume the starting position as indicated below.
- Crunch upwards until the toes are reached (Midpoint), briefly hold this position before returning to the start position.
- Do not jerk the arms to help start the exercise movement.

START:



MIDPOINT:



4. Knee Tucks On Swiss Ball

- Assume the starting position either as indicated below or in a push-up position with arms straight.
- While keeping the body off the ground pull the knees towards the body.
- Once the midpoint is reached, return back to the start position in a slow controlled movement.
- Keep the back straight throughout the exercise.

START:

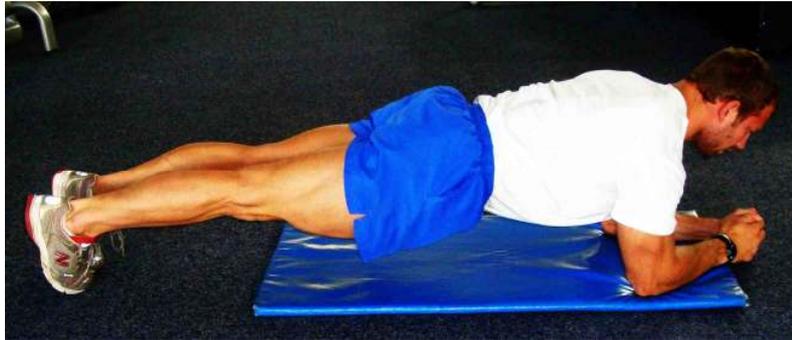


MIDPOINT:



5. Prone Bridge Hold

- Assume the position as shown below.
- Maintain this straight body position for the prescribed number of seconds.
- Maintain a straight back and body throughout the exercise.
- Ensure the feet hips and shoulders are in a straight line.
- Avoid hollowing the back.



6. Prone Hold On Swiss Ball

- Assume the position as shown below.
- Maintain this straight body position for the prescribed number of seconds.
- Maintain a straight back and body throughout the exercise.
- Ensure the feet hips and shoulders are in a straight line.
- Avoid hollowing the back.



7. Diagonals On Swiss Ball With Medicine Ball

- Assume the starting position as indicated below.
- Crunch upwards and sideways while lifting the medicine ball to the opposite side to the starting position (Midpoint).
- Repeat the same number of repetitions on each side.
- Do not jerk the arms to help start the exercise movement.

START:



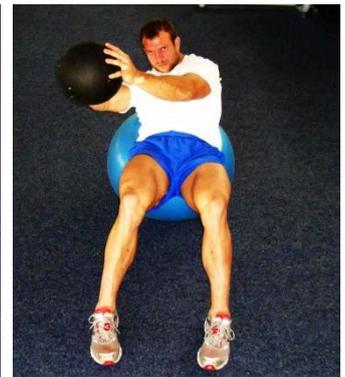
MIDPOINT:



START:



MIDPOINT:



REHABILITATION AND PREVENTION EXERCISES:

1. Shoulder Step-ups

- Assume a push-up position in front of a small step.
- Use the hands to step onto and down from the step.
- As indicated below perform left hand up, right hand up, left hand down, right hand down, this is one rep.
- Keep the body in a straight line throughout the movement and focus on keeping the shoulders forward and shoulder blades fixed.



2. Prone Neck Lifts

- Kneel on all fours as indicated below.
- Curl the head upwards and backwards.
- Hold briefly at the Midpoint position and then control back to the start position

START:



MIDPOINT:



3. Serratus Press

- Assume the start position on a flat bench.
- Push the shoulders upwards as far as possible and hold it there briefly, before dropping the shoulders back to the start position.
- If no dumbbells are available the same exercise may be performed on the ground in a push-up position.

START:



MIDPOINT:



4. Band Prone Neck Extension

- Kneel on all fours as indicated below.
- Use resistive tubing (i.e. bicycle tyre, theraband, toning tube etc.) as indicated below.
- Curl the head upwards and backwards.
- Hold briefly at the Midpoint position and then control back to the start position.

START:



MIDPOINT:



5. Internal And External Shoulder Rotation

External Rotation

- Use resistive tubing as shown.
- Pull the resistive tubing outwards.
- Keep a 90° angle in the elbow.
- Keep the rest of the body still.

START:



MIDPOINT:



Internal Rotation

- Use resistive tubing as shown.
- Pull the resistive tubing inwards.
- Keep a 90° angle in the elbow.
- Keep the rest of the body still.



6. Wrestler's Bridge

- Maintain and contract your neck muscles to support your body as shown below.
- Keep your chin tucked in at all times.
- Hold this bridge for the prescribed number of seconds before dropping back to a normal lying position. Repeat the prescribed number of times.
- Maintain a straight back and body throughout the exercise.



7. Alt Leg Raise Bridge On Ground Or Swiss Ball

- Lie either on your back or on a swiss ball.
- Lift your buttocks off the ground and assume a bridge position.
- Lift one leg at a time firstly straight up (with a bend at the knee), and then extend it, before returning to the start bridge position (see pictures below).
- Repeat the same prescribed number of reps with each leg.



8. Neck Holds

- Push lightly against each side of your head (only use 50% effort).
- Hold each side for 5 seconds.



9. One Foot Balance On Balance Ball

- Balance on a balance ball (or alternatively a tennis ball) for the prescribed number of seconds
- See below



POWER EXERCISES:

1. Power Clean

- This power exercise involves pulling the bar quickly and forcefully from the floor to the front of the shoulders.
- Ensure a straight back throughout the movement. Do not bend the back at any stage.
- Start the movement with feet parallel and at shoulders width. Place hands on the bar slightly wider than shoulder width and outside the knees.
- From this start position, pull the weight forcefully upwards and extend the hips and knees while plantar flexing the ankles.
- As the bar approaches shoulder height, bend the knees again to into a quarter squat position and “catch” the bar on the front of the shoulders.
- Extend the knees and hips again before lowering the bar gradually in a controlled descent onto the thighs and then squat down with straight back until the bar touches the floor.



2. Hanging High Pull

- This power exercise involves pulling the bar quickly and forcefully from a hanging position to a fully extended position with the bar at shoulder height.
- Ensure a straight back throughout the movement. Do not bend the back at any stage.
- Start the movement with feet parallel and at shoulders width. Place hands on the bar slightly wider than shoulder width.
- From the hanging start position, firstly dip down, and then pull the weight forcefully upwards as indicated while extending the hips and knees and plantar flexing the ankles.
- Lower the bar gradually in a controlled descent back to the start position.



3. Hang Clean & Jerk

- This power exercise involves pulling the bar quickly and forcefully from a hanging position to the front of the shoulders, and then in a separate movement jerking the bar to above the head with arms extended.
- Start the movement with feet parallel and at shoulders width. Place hands on the bar slightly wider than shoulder width.
- From the hanging start position, firstly dip down, and then pull the weight forcefully upwards while extending the hips and knees and plantar flexing the ankles.
- Catch the weight on the front of the shoulders with hips and knees flexed as explained in the power clean. Once the bar is on the shoulders extend the hips and knees again.
- From this position (bar on front of shoulders, hips and knees extended), firstly dip down into a quarter squat position again and then forcefully drive the weight upwards and catch it with arms extended and legs bent and in a split stance.
- Bring the legs together before lowering the bar gradually in a controlled descent onto the thighs and back into the hanging start position.



4. Jump Squat (BW Or Weighted)

- This exercise may be performed with or without weight. When using a weighted bar, extreme caution should be used and heavy weights should never be used.
- Hold the bar as if a normal squat is being performed with hips and knees extended.
- From the start position, squat down and then drive forcefully upwards and jump as high as possible.
- When landing ensure that your hips and knees absorb the impact by bending as your feet touch the ground.
- Very experienced lifters should only perform weighted Jump squats.
- Jump squats may also be performed in the same way without added resistance. i.e. using just your bodyweight.



5. Single Leg Box Jumps

- Place one leg on a step or chair as shown below
- Drive forcefully of the leg on the chair or bench and jump as high as possible
- Perform the same number of repetitions on each leg.



6. Smith Machine Bench Throws

- Assume the starting position with arms extended.
- Lower the bar onto the chest and then forcefully push the weight upwards and “throw” the bar at the top of the movement
- Catch the bar again while simultaneously decelerating it down and return to the start position.



7. Push-Press

- This power exercise involves pushing the bar as quickly and forcefully from the front of the shoulder to a fully extended position above the head.
- Start the movement with feet parallel and hip width apart. Place hands on the bar slightly wider than shoulder width.
- From this start position, forcefully extend the hips and knees and then the elbows to press the bar overhead.
- Lower the bar gradually in a controlled descent onto the front of the shoulders.



8. Lying Medicine Ball Throws

- Lie on your back and hold a medicine ball as shown
- Throw the medicine ball forcefully and quickly for maximum height.
- Catch the medicine ball again while simultaneously decelerating it back to the start position



9. Cable Push Pull

- Assuming the start position as shown below, simultaneously push and pull the two pulley cables of a two pulley machine as forcefully and quickly as possible while rotating the body.
- When the midpoint position is reached, slowly lower the weight back to the start position
- Repeat the same number of repetitions on each side.

START:



MIDPOINT:



10. Squat Thrusts

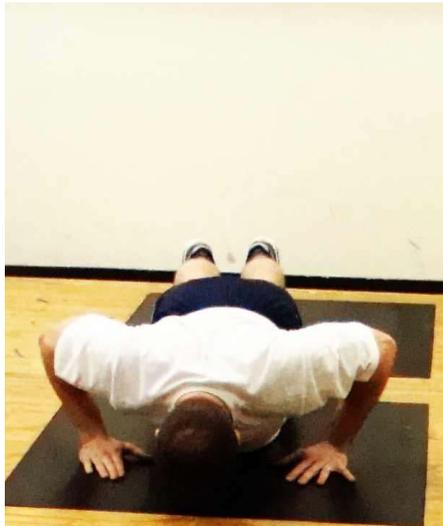
- Lie flat in your stomach
- While pushing down with the hands quickly pull the legs up towards the body and then jump as high as possible.
- Land softly and return to the start position.



11. Clap Push-ups

- Perform an explosive push-up through pushing forcefully downwards
- At full extension of the arms, bring the hands together and clap before landing and decelerating back to the start position.

START:



MIDPOINT:



12. Medicine Ball Plyometric Push-Ups

- Perform an explosive push-up with one hand on a medicine or rugby ball.
- Push forcefully with both arms and cross over the medicine (or rugby) ball and “land” with opposite hand on the medicine (or rugby) ball.

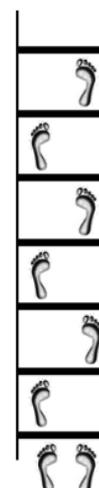


SAQ EXERCISES (SPEED, AGILITY AND QUICKNESS):

Include a combination of these drills into the SAQ conditioning sessions prescribed during the team practice sessions:

1. Speed Ladder 1

- Start with feet together facing the speed ladder
- Perform one step in each block
- Run the length of the ladder, moving feet as fast as possible
- If no speed ladder is available conventional cones may be laid out and fast feet performed in the same manner as with the ladders



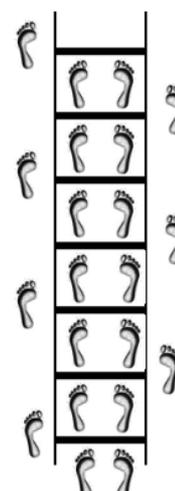
2. Speed Ladder 2

- Start with feet together facing the speed ladder
- Perform a left and a right step in each block
- Run the length of the ladder, moving feet as fast as possible
- If no speed ladder is available conventional cones may be laid out and fast feet performed in the same manner as with the ladders



3. Speed Ladder 3

- Start with feet together facing the speed ladder
- Side step into and out of each block as you move forward
- Run the length of the ladder, moving feet as fast as possible
- If no speed ladder is available conventional cones may be laid out and fast feet performed in the same manner as with the ladders



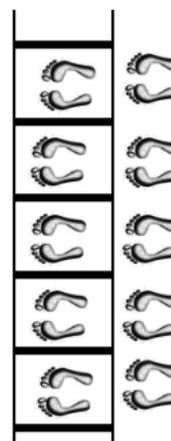
4. Speed Ladder 4

- Start with feet together with your side facing the speed ladder.
- Perform lateral stepping, both feet in each block.
- Run the length of the ladder, moving feet as fast as possible.
- If no speed ladder is available conventional cones may be laid out and fast feet performed in the same manner as with the ladders.



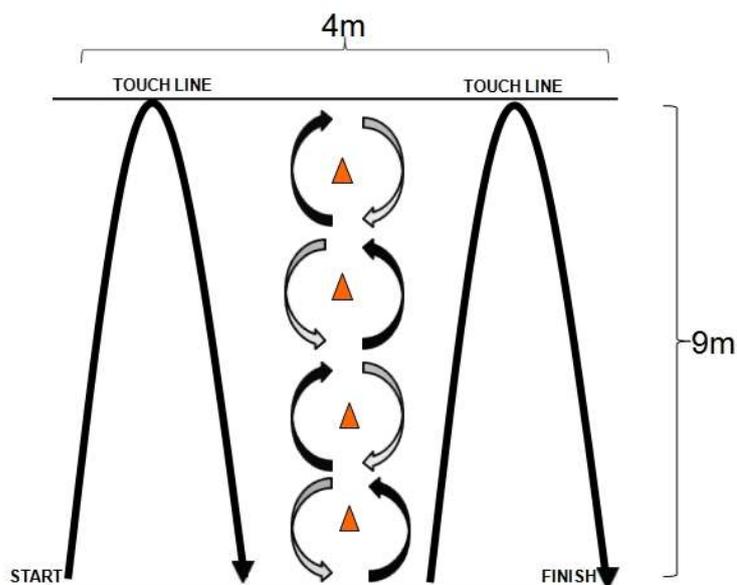
5. Speed Ladder 5

- Start with feet together, sideways in the first ladder space.
- Move laterally down the ladder, first placing stepping backward and then sideways.
- Move laterally while performing two feet in two feet out stepping in each block.
- Run the length of the ladder, moving feet as fast as possible
- If no speed ladder is available conventional cones may be laid out and fast feet performed in the same manner as with the ladders



6. Illinois Agility Run

- Lay out the drill as shown below.
- From the start position, firstly sprint to a line 9 meters away, touch it and sprint back.
- Then run through the cones to the opposite line through first following the black line and then return following the grey line.
- Complete another sprint to the opposite line and back before finishing.



7. Run Through Mini Hurdles

- Run with high knees over either mini hurdles, or if no mini hurdles are available, run with high knees over cones.
- Place the hurdles or cones roughly 50 cm apart and focus on high knees and quick feet.

8. Body Lean Accelerations

- Assume a pronounced lean against a partner (see below).
- When your partner stops resisting and steps out of the way, accelerate forwards for 5-10m, gradually slow down and return to the start position.



9. Hollow Sprints

- Position cones at 5m, 10m, 20m, 30m, 45, and 60m from a start line
- Jog to the first cone (5m jog)
- Sprint to the next cone (5m sprint)
- Jog to the next cone (10m jog)
- Sprint to the next cone (10m sprint)
- Jog to the next cone (15m jog)
- Sprint to the next cone (15m sprint)

10. Sprints

- Perform 10m and 20m sprints
- Vary the starting position may be varied; i.e. track start, 3 point start, lying down start etc.

11. Rolling Sprints

- Place 4 cones at 20 m intervals over a distance of 80m
- Drill 1: Accelerate at maximum speed to the first cone (20m), explode and sprint at maximal intensity to cone 2 (40m), focus on pumping the arms and increasing the knee-lift height
- Drill 2: Accelerate at maximum speed to the first cone (20m), explode and sprint at maximal intensity to cone 3 (60m), focus on pumping the arms and increasing the knee-lift height
- Drill 3: Accelerate at maximum speed to the second cone (40m), explode and sprint at maximal intensity to cone 4 (80m), focus on pumping the arms and increasing the knee-lift height

