

PRESEASON FITNESS TRAINING PROGRAM

BEGINNERS LEVEL

2015-16

By Ross Hanbury

Rugby union referee's pre-season fitness training program: Beginners level

Welcome to your beginners level pre-season fitness training program for rugby union referees. This program has been put together as a guide for those referees who are new to fitness training and looking to follow a structured, safe and effective fitness program. This program is 11 weeks long and requires a minimum of two training sessions to be completed each week, with each session lasting no more than 45 minutes in total. Before starting this fitness training program though, it is imperative that if there are any medical or previous injury issues that you feel could impact or be made worse by a change in your physical activity levels; then you need to get in contact with your doctor, or myself on the e-mail below.

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In order to handle the physical demands of refereeing a game of rugby it is important that the modern day referee is physically fit. If a referee is unfit and not able to keep up with play; then it is unlikely that they will be in the right place at the right time to make the correct decision relating to the game.

'Being fit allows you to focus on making the right decision and not how out of breath you are! '

At this point in time it is actually very difficult to accurately quantify the physical demands of refereeing a game of rugby; however with the recent development of global positioning system (GPS) technologies, we are now starting to get a bit more of an understanding of the physical demands at the elite level. An IRB study run by Matt Blair between 2009 and 2013 used GPS technologies to look at trying to quantify some of the physical demands placed on referees across 360 top level games.

The study showed that:

1. Referees on average covered 6.8 kilometers in a game

2. Of the 6.8 kilometers covered, 1.5 kilometers were covered at high* Intensity speeds

*metres covered above 51% of each referees maximum speed.

3. Time spent running at high intensity speeds averaged 5.47 mins per game.**4. Time spent above 80% of heart rate maximum (individualised to each referee) accounted for 43.43 mins in total.****5. Referees on average performed 13 sprints a game ranging from 6 to 40 metres in distance.**

Simplifying the IRB study findings we can say that the modern referee at any level of the game needs to have:

A high level of aerobic fitness/endurance

The ability to handle the high intensity running that occurs during the game

To fall in line with the International Rugby Board, Rugby Football Union and the National Panels testing protocols, many of the referee societies use the YOYO intermittent recovery test level 1(YYITRTL1), to assess the fitness levels of its members across all levels.



Picture of the LSRFUR having fun whilst participating in the YYITRTL1 (YO YO) test!

The YYITRTL1 is similar to the ‘bleep test’ requiring participants to run between two cones 20 each metres apart. However the YYITRTL1 allows participants a 10 second rest after the second 20 metre run. The speed at which the 2 x 20 metre runs must be completed at increases progressively for the YYITRTL1, until the participant can no longer complete the runs or choose to stop. An example of some ‘ok’ players doing performing the YYITRTL1 can be seen in the video clip below:



<http://www.youtube.com/watch?v=nwYx62e2VJI>

The YYITRTL1 better reflects and assess the physical demands of a referee as it is intermittent in nature (stop and start) which is similar to the activity profiles of a referee during a game. The test also provides participants with a quantifiable insight as to how their fitness compares to other referees across the refereeing standards, all the way up to IRB (international) standard. With a testing score, referees can determine how much time they need to spend on extra fitness work, in accordance with their refereeing aspirations.

For more information on the YYITRTL1 (YO YO Test) please feel free to get in touch with me via e-mail.

Ok so let's start to put the program together!

In order to get the most out of any training program there are three training principles that need to be adhered to:

Specificity: So that your training has the desired effect and gets you fitter for refereeing, it is important that all the training sessions you do are 'referee specific'. We can design sessions that are referee specific by using the research on the physical demands of refereeing (such as that by Blair 2013, above) to guide our program design. A classic mistake which is often made, is when referees simply 'go for a run' in order to get fit to referee and don't consider the intensity they are working at. Now going for a run will keep you healthy, however it will not address and get the body used to handling the intermittent, high intensity nature of refereeing. An example of a session that would be more beneficial for a referee would be one that is done on grass and is interval based with multiple changes in direction (such as those found in the program below). This would then prepare and improve all the physical fitness qualities a referee needs during a match.

Overload: In order to get fitter, you are going to need to push your body and current fitness above what it is used to (within reason). When pushed beyond its current capacity, your body will adapt and make improvements, which mean in the long run you will get fitter!

Progression: So that you keep improving your fitness levels, you need to keep pushing your fitness along (by manipulating either the intensity or volume of the, day, week or training period etc). However it is important to note that progressing your program too quickly could potentially result in over training and injury. Whereas progressing your training too slowly could do the opposite and result in no improvements in training at all. Similar to overload, the programme below has suitable rates of progression to ensure that you achieve your goals safely.

Individuality: The fourth and probably most important principle of training (accompanying the other training principles above) is the principle of individuality. In order for a program to be successful and effective, it needs to work for you. It needs to fit into your life/work schedule and allow you to put as much energy into the training sessions as possible. Therefore, no two people's programs should be the same. This is where I come in; if you feel that the program below does not fit into your routine/lifestyle then let me know and we go look to change a few things around so that it does.

The following program has been put together so that you are in the optimum physical shape for the fitness testing sessions and the season.

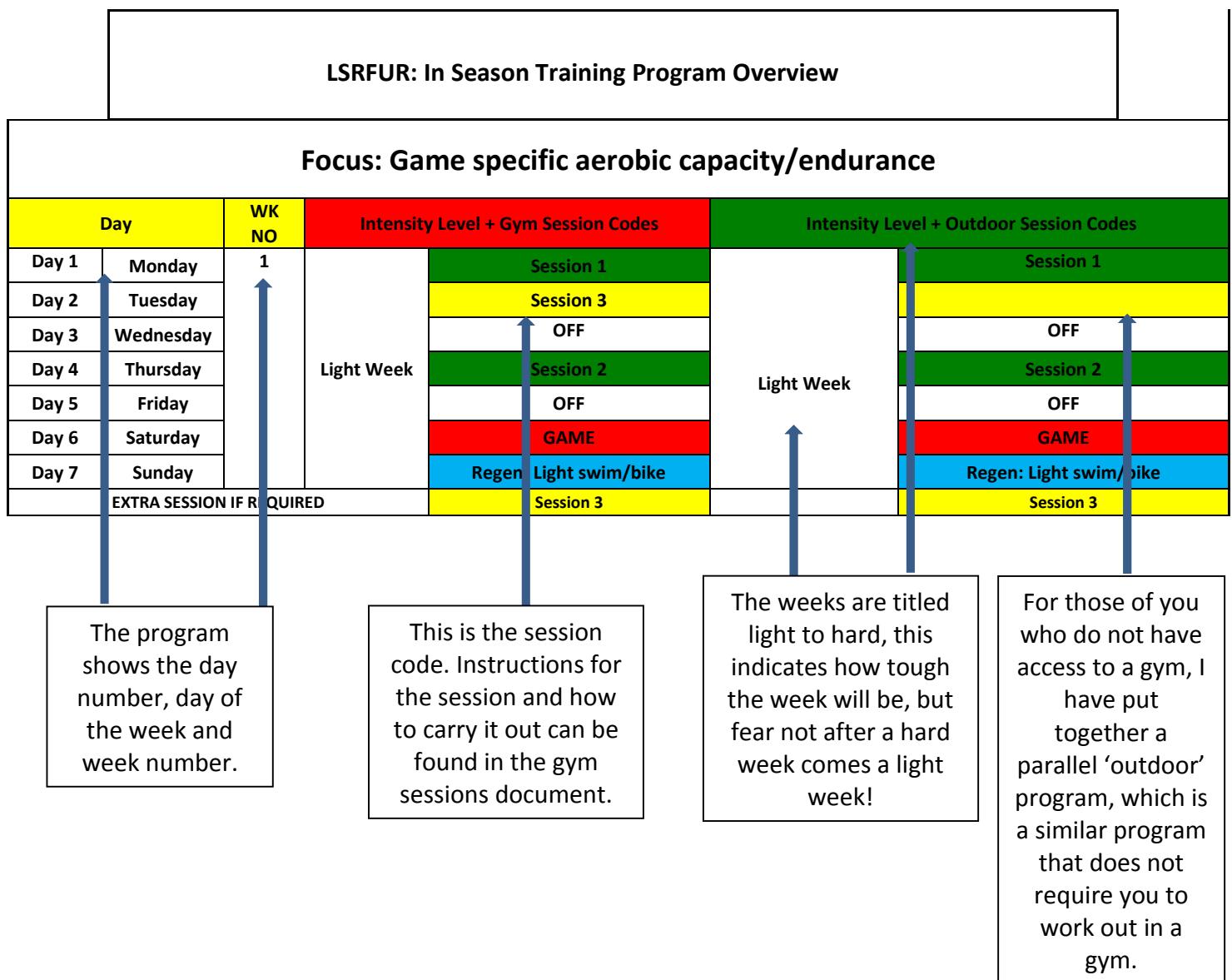
For the preseason it is advised that you follow a session to rest ratio of 1:1, in other words you train 1 day and then rest the next day (1).

Page 7 onwards in this document will show you to develop and build your fitness levels in a progressive and safe way, however before looking at that it is important to explain how the

charts in the program work.

The program is broken down into three key areas:

1. The program over view, like below. This shows an overview of the training week
2. The gym based sessions
3. The outdoor sessions (these are sessions that are very similar in terms of the areas of fitness worked on as the gym based sessions; but can be done outside).



The table below is an example of a session (session 1 on the program) break down that is found after the programme overview table in this doc. This is where the instructions for the training sessions can be found.

The session codes table shows the session number out of 10, how hard the session should be and what piece of kit you would ideally do the session on.

To help you plan and fit the session into your diary, there is an estimation of how long the session should take.

Session Plans (Gym Based)

Session	RPE Intensity (10 Highest)	Modality	Session Content/Instructions	Work Res Ratio	Sets	Work (Mins,Secs or Metres)	Rep Rest Durations	Rest Duration btw Sets	Session Duration
1	6	Row	1. Warm Up 2. Row 1KM 3. Rest 3 Mins/core work 4. Row 1KM 3. Rest 3 Mins/core work 6. Row 1 KM	1 To 1	1	1KM, 1KM, 1KM	3 Mins	N/A	25-35 Mins

There is a detailed description of the session content, so that you know what you are doing step by step.

As for the rest of the info, don't worry too much about this, as and when you develop your fitness, these will become more important.

Finally, this document is designed as a guide, not as a comprehensive program of what every referee should do. As I said, the fourth and probably most important principle of training is the principle of individuality. In order for a program to be successful and effective, it needs to work for you. It needs to fit into your life/work schedule and allow you to put as much energy into the training sessions as possible. Therefore, no two people's programs should be the same. So as long as you follow a basic outline of this program and don't choose sessions outside their allocated weeks you will see and feel the improvements in refereeing fitness.

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LSRFUR Pre Season Training Plan (Beginner)



1st June – 24th August



Focus: Aerobic Endurance and Aerobic Power

Day	Date	WK NO	Intensity Level + Gym Session Codes	Intensity Level + Outdoor Session Codes
Mon	01/06/2015	1	Light	Session 1
Tues	02/06/2015			
Wed	03/06/2015			Session 2
Thur	04/06/2015			
Fri	05/06/2015			Recovery Session (See DVD)
Sat	06/06/2015			
Sun	07/06/2015			
Mon	08/06/2015	2	Light	Session 1
Tues	09/06/2015			
Wed	10/06/2015			Session 2
Thur	11/06/2015			
Fri	12/06/2015			Recovery Session (See DVD)
Sat	13/06/2015			
Sun	14/06/2015			
Mon	15/06/2015	3	Moderate	Session 4
Tues	16/06/2015			
Wed	17/06/2015			
Thur	18/06/2015			
Fri	19/06/2015			Session 4
Sat	20/06/2015			
Sun	21/06/2015			Recovery Session (See DVD)
Mon	22/06/2015	4	Hard	Session 4
Tues	23/06/2015			
Wed	24/06/2015			Session 5
Thur	25/06/2015			
Fri	26/06/2015			
Sat	27/06/2015			
Sun	28/06/2015			Recovery Session (See DVD)

Mon	29/06/2015	OFF WEEK NO TRAINING											
Tues	30/06/2015	OFF WEEK NO TRAINING											
Wed	01/07/2015	OFF WEEK NO TRAINING											
Thur	02/07/2015	OFF WEEK NO TRAINING											
Fri	03/07/2015	OFF WEEK NO TRAINING											
Sat	04/07/2015	OFF WEEK - NO TRAINING											
Sun	05/07/2015	OFF WEEK - NO TRAINING											
Mon	06/07/2015	5	Hard	Practice YO YO Test (CD)		Hard	Practice YO YO Test (CD)						
Tues	07/07/2015												
Wed	08/07/2015			Session 5			Pyramid Session (See pitch sessions)						
Thur	09/07/2015												
Fri	10/07/2015			Session 4			Session 8						
Sat	11/07/2015	Check in with Ross to let me know how you are going !											
Sun	12/07/2015												
Mon	13/07/2015	6	Light			Light							
Tues	14/07/2015												
Wed	15/07/2015												
Thur	16/07/2015			Session 6			Centre Circle Session (see pitch sessions)						
Fri	17/07/2015												
Sat	18/07/2015			Session 2			Session 2						
Sun	19/07/2015												
Mon	20/07/2015	7	Moderate			Moderate							
Tues	21/07/2015												
Wed	22/07/2015			Session 8			Session 8						
Thur	23/07/2015												
Fri	24/07/2015												
Sat	25/07/2015			Session 6			Session 6						
Sun	26/07/2015												
Mon	27/07/2015	8	Hard week if not doing testing session. Easy week, session 2 only if doing testing	Session 9		Hard week if not doing testing session. Easy week, session 2 only if doing testing	Session 9						
Tues	28/07/2015												
Wed	29/07/2015						Testing Session - Emmanuel						
Thur	30/07/2015												
Fri	31/07/2015			Session 10			Pyramid Session (See pitch sessions)						
Sat	01/08/2015												
Sun	02/08/2015												
Mon	03/08/2015	9	Hard week if not doing testing session. Easy week, session 2 only if doing testing	Session 9		Hard week if not doing testing session. Easy week, session 2 only if doing testing	Session 9						
Tues	04/08/2015												
Wed	05/08/2015						Testing Session: Queen Mary						
Thur	06/08/2015												
Fri	07/08/2015			Session 10			Pyramid Session (See pitch sessions)						
Sat	08/08/2015												
Sun	09/08/2015												

Mon	10/08/2015	10	Hard week if not doing testing session. Easy week, session 2 only if	Session 5	Hard week if not doing testing session. Easy week, session 2 only if	Session 5
Tues	11/08/2015					
Wed	12/08/2015			Testing Session - Emmanuel		Testing Session - Emmanuel
Thur	13/08/2015					
Fri	14/08/2015			Session 6		Pyramid Session (See pitch sessions)
Sat	15/08/2015					
Sun	16/08/2015		doing testing		doing testing	
Mon	17/08/2015	11	Moderate	Session 4	Moderate	Session 4
Tues	18/08/2015					
Wed	19/08/2015			Session 5		Session 5
Thur	20/08/2015					
Fri	21/08/2015			Session 4		Session 4
Sat	22/08/2015			Testing Session - Emmanuel		Testing Session - Emmanuel
Sun	23/08/2015					Session 2

In season training program used from 24/09/2015



Gym Based Session Plans



Session	Intensity	Modality	Session Content	Sets	Work (Mins etc)	Rep Rest	Rest btw Sets	Session Duration
1	6	Row	1. Warm Up 2. Row 1KM (at a pace you would say is 6 out of 10) 3. Rest 3 Mins 4. Row 1KM (at a pace you would say is 6 out of 10) 5. Rest 3 Mins 6. Row 1KM (at a pace you would say is 6 out of 10) 7. Stretch to finish	1	1KM, 2KM, 1KM	3 mins	N/A	25-35 Mins
2	7	Run	1. Warm Up 2. Set 2% Incline on treadmill* 3. Run for 20 mins or 3KM *If you don't feel comfortable running then use X-Trainer instead of treadmill for 20 mins	1	3KM OR 20 MINNS (Which Ever Comes First)	N/A	N/A	25-30 Mins
3	6 to 8	Bike	1. Warm Up 2. Cycle 5 Mins (at a level you feel is 6/10) 3. Cycle 5 Mins (At an EASY pace) 4. Cycle 5 Mins (at a level you feel is 7/10) 5. Cycle 5 Mins (At an EASY pace) 6. Cycle 5 Mins (at a level you feel is 8/10) 7. Cycle 5 Mins (At an EASY pace)	3	5 Mins	5 Mins	5 Mins	35 Mins
4	6 to 8	Bike/X-Trainer/Treadmill	1. Warm Up 2. 10 Mins on treadmill (at a level that is 6/10) 3. 2 Min rest 4. 10 Mins X-Trainer (at a level that is 7/10) 5. 2 Mins rest 5. 10 Mins Bike (at a level that is 8/10) 6. 2 Mins rest/finish	3	10 Mins	2 Mins	N/A	45 Mins
5	6 to 8	Run	1. Warm Up	1	5 Mins		N/A	35 Mins

		2. 5 Mins fast run					
		3. Rest 3 Mins (walking)					
		4. Repeat 5 times				3 Mins	



Gym Based Session Plans



Session	RPE Intensity	Modality	Session Content	Sets	Work	Rep Rest	Rest btw Sets	Session Duration
6	7 to 8	Run	1. Warm Up	1	4 Mins	3 Mins	N/A	30-40 Mins
			2. 4 Mins run fast					
			3. Rest 3 Mins					
			4. Repeat 4 times					
7	7	Body Weight Exercises Circuit (Beginner)	1. Warm Up	3	30 Secs	2 Mins	N/A	35-40 Mins
			2. Perform 30 secs of each exercise (see DVD)					
			3. Rest for 30 secs between each exercise					
			4. Rest for 3 mins after last exercise					
			5. Repeat circuit 2 or 3 times					
8	6 to 8	Bike	1. Warm Up	3	1 Min	1 Min	N/A	35 Mins
			2. Cycle 1 Mins (at a level you feel is 8/10)					
			3. Rest (slow cycle for 1 min)					
			4. Repeat 15 times					
9	6 to 8	Run	1. Warm Up	1	1 Min	1 Min	N/A	35 Mins
			2. Run 1 Min fast					
			3. 1 Min rest					
			4. Repeat 12 times					
10	6 to 8	X-Trainer	1. Warm Up	2	4 Mins	6 Mins	N/A	40 Mins
			2. 30 Secs Sprint					
			3. 30 Secs Rest					
			4. 45 Secs Sprint					
			5. Rest 45 Secs					
			6. Repeat sequence above (2-5) 3 more times					
			7. Rest 6 Mins					
			8. Repeat 1 or 2 more sets					
Recovery Session		See separate sheet						

11	6 to 8	Run	1. Warm Up		3	10 secs	20 secs	5 Mins	35 Mins					
			2. 10 Sec Sprint every 30 secs											
			Rolling Clock											
			3. Repeat 10 times											
12	6 to 8	Run	1. Warm Up		2	10 secs	20 secs	10 Mins	35 Mins					
			2. 20 sec Sprint											
			3. Rest 60 secs											
			3. Repeat 8 times											

RECOVERY/FLEXIBILITY SESSION

(DONE BEFORE AND/OR AFTER SESSIONS)

No	Name Of Exercise	Sets	Reps	Picture	Coaching Points
The aim of this session is to improve the condition of your muscles					
1	Foam Roll - Calf	1	6 times up and down foam roll		
2	Foam Roll - Leg	1	6 times up and down foam roll		
3	Foam Roll - Hip	1	6 times up and down foam roll		
4	Foam Roll - Groin	1	6 times up and down foam roll		
5	Foam Roll - Back	1	6 times up and down foam roll		
6	Stretch - Calf	1	20 Sec Hold		
7	Stretch - Hip	1	20 Sec Hold		
8	Stretch - Hip	1	20 Sec Hold		
9	Stretch - Lower Back	1	20 Sec Hold		

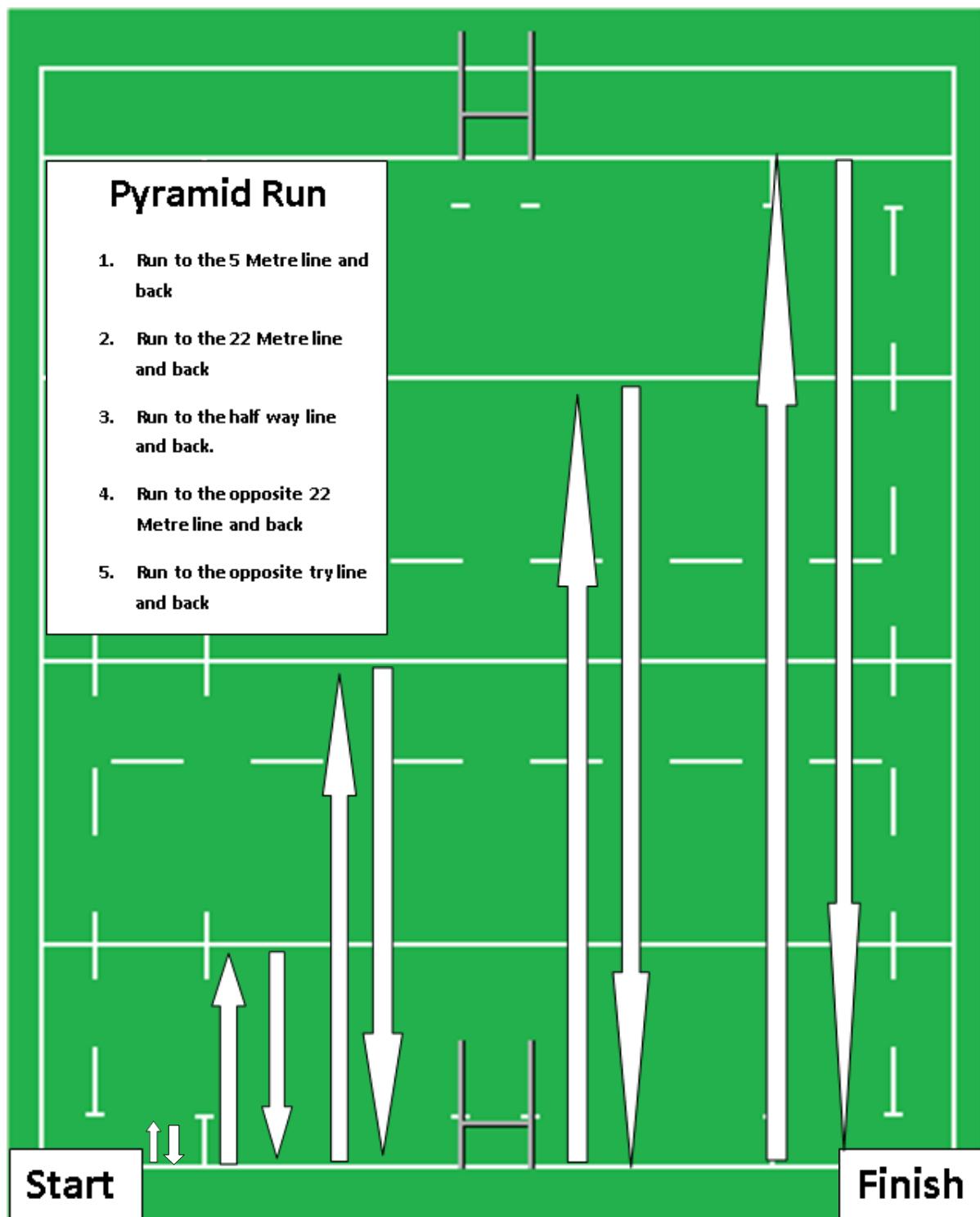


LSRFUR - Core Session



No	Name Of Exercise	Sets	Reps		Picture	Coaching Points
The aim of this session is to improve RUNNING EFFICIENCY						
1	Shoulder Bridge	2	15	30 Secs		Lie on your back, with your knees bent, take your toes off the floor, push your hips up, activate glutes as you do. Repeat required number of sets and reps
2	Plank	2	1 x 60 Secs	30 Secs		Lie on your front, lift yourself up so that your elbows are beneath your shoulders, keep your hips and back in line, hold for required time.
3	Cobra	2	15	30 Secs		Lie on your front with your head down, take your arms off to your side so that they are in line with your chest. Squeeze shoulder blades together and lift arms off the floor, hold for 1 second in top position, slowly take arms back to start position.
4	Seated Twists	2	20 (10 each side)	30 Secs		Sit on hips, bend knees and take feet off the floor. Keep your balance. Take arms from side to side (touching floor) slowly.
5	Plank with leg lift	2	10 each leg	30 Secs		In the plank position, lift 1 leg an inch off the floor, hold, then return foot to floor, ensure that hips and back stay in line
6	Side Plank with leg lift	2	10 each leg	30 Secs		Start by lying on your side, elbow positioned beneath shoulder, position leg nearest floor at 90 degree angle. Lift body away from floor, hold in top position then return to floor, repeated required number of sets.
7	Superman	2	10 each side	30 Secs		On all fours, lift up your right arm and left leg, hold when arm and leg are parrel to floor, return to start position, then lift up left arm and right leg to same position. Repeat required number of reps each side.
8	Push Ups	2	15	30 Secs		
9	Single Leg Squats	2	10 each leg	30 Secs		Standing on one leg. Lean forward pushing hips back, bend knees to lowest position that you can balance in. Return to standing position. Repeat required number of reps.

Pitch based sessions



1. Warm-up: following protocol laid out in DVD
2. Perform sequence of runs (as shown above)

Beginners complete 4 reps with 3 mins rest between reps

Intermediate complete 6 reps with 2 mins rest between reps

Advanced/elite complete 8 reps with 2 mins rest between reps

Rep 4
Rep 1