

MLS Referees and Assistant Referees

General Training Plan For January to February 2010

Introduction

This training program is meant to help individuals pass the upcoming MLS Fitness test. If you have been training on your own and feel confident that your current physical conditioning level is adequate to pass the fitness test, please do not feel obligated to change your training habits. If at any time you have any questions please E-mail me (Bill Jordan) at William.Jordan@sru.edu

Definition of Terms

Warm Up and Cool Down

Dynamic Warm Up: Progressive buildup of movement, done with the intent of increasing the heart rate, body temperature, and breathing rate **before** active stretching (Dynamic Stretching) takes place. Also prepares individuals for higher intensity activity.

Active Stretching: A warm-up activity that progressively increases in intensity and speed to move the body segments through a large range of motion, with the intent of increasing the individual's range of motion.

Static Stretching: A **cool down** procedure that is meant to increase range of motion by holding muscles in stretched positions for 10 to 20 sec.

Important Training Terms:

HRM: Heart Rate Maximum

Training Session: A period of exercise intended to develop the athlete's physical abilities.

Aerobic Endurance: Sustainable activity with the intent of increasing ones aerobic endurance levels. Performed between 65 and 85% of heart rate max for a minimum duration of 20 minutes, recommended 30 to 45 minutes.

Interval training: Training that consists of short duration high intensity movements, followed by a rest period.

Speed Training: Speed training is performed at or above the individuals heart rate max. This training will consist of short duration high speed sprinting, followed by full a full recovery. Many times the workout will be given in percentage of maximum sprinting ability, which is significantly different than maximum heart rate.

High Intensity Training: Exercise at or above the anaerobic threshold, normally at 85-93 percent of heart rate maximum.

Medium Intensity Training: Medium intensity training is done for the purpose of improving an individual's aerobic capacity. The pace is slower than "High Intensity Training" but should still be challenging and stressful. Performed at 76 to 86% of the individual's heart rate max.

Low Intensity Training: Low intensity training is manly used for the purpose of aerobic conditioning or recovery. This should be a comfortable pace work out at 66 to 75% of the individuals heart rate max.

Active Recovery: Work out session with the intent of stimulating blood flow to the entire body. Should be performed at or below 65% of heart rate max. When every possible use non weight bearing activities such as biking, stair steppers, rowing, water activities, Etc.

Training Information:

All individuals should perform either four or five training sessions per week. The number of training days performed each week will depend greatly on your soccer officiating schedule, the physical demands placed on your body, and personal schedule. These training sessions will be broken down into three distinct training components: **warm-up, workout, and cool down**. Many different types of workouts will be recommended throughout the week. These workouts will include: rest, active recovery,

aerobic endurance, interval training, and sprinting workouts. Both referees and assistant referees will be given similar training programs, despite having somewhat different testing procedures during and game requirements. Following this first month of training, two training plans will be given, one for referees and one for assistant referees. During all training sessions, match performances, and fitness assessment, I ask that you wear polar heart rate monitors and submit your data at the end of every month. I understand that each of you will have outside restrictions placed on your training routine, whenever possible perform the workout on the appropriate day. Furthermore, I have always told my athletes that they are their own best coach. This is especially true in this case because I am not there to directly coach you during any of your training sessions. The given training plan is simply a recommendation, and you are responsible for your own well being. Please adapt the recommended training program to best fit your own personal training needs. Remember recovery is a very important and necessary part of any training plan. Without appropriate recovery time after hard workouts sessions, your body will not regenerate muscle tissue as fast and will lead to over training injuries. During all running activities individuals should attempt to perform workouts on a forgiving surface, such as a soccer playing field, grass or 400 meter track. Individuals should avoid surfaces such as concrete and asphalt.

A dynamic warm-up should be performed at the onset of every training session, match performance, and fitness assessment. This dynamic warm-up should last between ten and fifteen minutes. I recommend that you start with five to ten minutes of low intensity jogging that will slowly build up to 70 percent of your heart rate max. During the last half of this stage you should begin performing various locomotor movements meant to increase mobility. These movements could include activities such as; side shuffles, jogging arm swings, backwards jogging, low step and scoop, karaoke, easy skipping, etc... The purpose of this low intensity jogging and mobility exercises is to gradually warm up the muscle temperature before beginning a dynamic stretching routines. If you feel that you are not fully prepared to perform a dynamic stretching routine at this time, you should continue to jog. A good indication of

appropriate muscle temperature is the formation of sweat on your body. Only dynamic stretches should be performed during the warm-up, starting with low intensity movements and building into high intensity movements. These dynamic stretches will involve continuous movement of the major muscle groups, unlike static stretching which denotes prolonged holding of a muscle in an elongated position. Examples of dynamic stretches that could be used: walking knee to chest, walking knee to shoulder, walking foot to hip, walking toe touches, walking arm swings, windmills, leg swings, lunges, etc... Following the active stretching the individuals should perform any additional warm up activities that they feel necessary. Do not static stretch. Static stretching has been shown to decrease individual's explosive power and increase the chance of muscle injury.

After every workout session, you will need to properly cool down your body to prevent injuries. The entire cool down will take between ten and twenty minutes. You should begin the active cool down with a medium intensity jog that starts at 75 percent of your individual heart rate maximum and slowly progresses down to a recovery jog and walk. Following this active cool down you should perform ten minutes of static stretching. Static stretching is performed by holding each major muscle group in its extended position for a period of up to twenty seconds. You will need to move your body into a position of slight discomfort for the duration of each major muscle stretch. You should not force yourself into harmful positions that may cause over-stretching injuries. Static stretching is considered to be an excellent injury prevention method that should not be over looked. Following the static stretching portion of the cool down, individuals should perform 5 minutes of abdominal exercises.

General Training Calendar

Sundays: Rest or Active Recovery

The focus of Sunday's will be your choice between rest or active recovery. Active recovery is done to stimulate blood flow throughout the major muscle groups which has been proven to increase recovery time and prevent injury. To do this you should perform low intensity, low

impact aerobic training for a period of 10 to 15 minutes. Low impact aerobic training includes activities such as; biking, rowing, and elliptical. Treadmills and jogging on a soft surface can also be used if you do not have access to the proper equipment. 5 to 10 minutes of static stretching and abdominals should follow this easy warm up session. It is important to remember that gains in fitness are often made during recovery periods, as the body will use this time to rebuild muscle that have been broken down by repeated bouts of physical activity. Referees and assistant referees should avoid moderate to hard physical work during these days.

Monday: High Intensity Running

The goal of Monday's workout will typically be to improve upon your high intensity running and aerobic recovery time. These interval workouts will be based on heart rate intensity and duration of repetition instead of distance and speed percentages. Example of workout procedures; one minute run at 90 percent heart rate max, followed by thirty second jogging recovery.

Tuesday: Aerobic Endurance

The goal of Tuesday training will be to increase your aerobic endurance levels through moderate exercise. You will still need to perform a full warm up prior to starting your workout session. Workouts will typically consist of 15 to 30 min in your target heart rate zone. Running is always the best training method but if you are feeling tired or sore from the previous workout you should consider using alternative activities.

Wednesday: Sprint Endurance

The areas of focus for Wednesday's training session will be either short sprinting and or sprinting endurance. Workouts during these training sessions may be based on percent of maximum sprinting speed. Typically these exercises will take place at high speeds such as 85 to 100% of your maximum sprinting speed; this will require you to judge your overall speed. This day may also be used to perform set interval that are specific to the fitness test.

Thursday: Rest and Recovery Same as Sunday.

Friday: NO WEEK END GAME

The goal of Friday's training will be to increase your aerobic endurance levels through moderate exercise. Individuals should perform a full warm up prior to starting your workout session.

Workouts will typically consist of 20 to 45 min in your target heart rate zone. Running is always the best training method but if you are feeling tired or sore from the previous workout you should consider using alternative activities.

Friday: Game Preparation

Properly preparing yourself to officiate a game is a very important part of your training. The day prior to your game should **not** consist of total rest and relaxation. Instead I recommend that you perform a full warm up, similar to what you will perform before the game. Following your warm up, you should perform between four and six acceleration of 50 to 75 meters. Each sequential repetition should increase in intensity and speed but at no time should you reach your absolute sprinting maximum. Remember this is not a workout it is simply meant to loosen your legs before the next day's match. Following these easy acceleration you should perform your standard cool down routine minus the abdominals.

Saturday: Game or Interval Workout

If you are scheduled to officiate a match you should not have any specific workout session scheduled for that day. If you are not assigned to a game you should consider this a regular training day, with the specific goal of high intensity running. This would also be an excellent day to practice the MLS Fitness Test in some form. If you chose to alter the Fitness Test for training purposes, I would **not** recommend changing the pace of each interval because learning the pace to run each interval is very important. Instead I would recommend changing the number of intervals or changing the recovery time.

Four Week Training Plan for MLS Fitness Test Preparation

Thursday Jan 7th

Rest or Active Recovery

1. Warm Up: 5 to 15 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups.

Friday Jan 8th

Aerobic Endurance

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 20-30 min aerobic endurance running at 70 to 85% of HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down 5 to 10 min Static stretching and ABS

Saturday Jan 9th

Practice Test

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. Workout: Practice Fitness Test: 16-20 X 150 meters @ 30 sec per interval and 30 sec rest
4. Cool Down: 5 to 10 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Sunday Jan 10th

Rest or Active Recovery

1. Workout: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups.

Monday Jan 11th**High Intensity Running**

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. Workout: 5 min up tempo running at 85 to 90% HRM x 3 sets 2-3 min jogging recovery
4. Cool Down: 5 to 10 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Tuesday Jan 12th**Aerobic Endurance**

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 15-30 min aerobic endurance running at 70 to 85% of HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Wednesday Jan 13th**Sprint Endurance**

1. Warm Up: 10 min jogging building up to 70% of HRM
2. Warm Up: 10 min dynamic stretching and mobility
3. Workout: 4 x 50m accelerations building up to 90% of sprint max (rolling start)
4. Workout: 2 sets x 3 reps 80meter @ 85-90 % rest 2min between reps and 4min between sets
5. Cool Down: 5 min jogging and walking return to Resting Heart Rate
6. Cool Down: 5 to 10 min Static stretching and ABS

Thursday Jan 14th**Rest or Active Recovery**

1. Warm Up: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Friday Jan 15th**Aerobic Endurance**

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 20-30 min aerobic endurance running at 70 to 85% of HRM + at the end of every 5 min period of time perform a 30 sec up tempo run at 85 to 90% HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Saturday Jan 16th**Practice test**

1. Warm Up: 5 to 10min jogging building up to 70% of HRM
2. Warm Up: 5 to 10min dynamic stretching and mobility
3. Workout: Practice Fitness Test: 18-20 X 150 meters @ 30 sec per interval and 30 sec rest
4. Cool Down: 5 to 10min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Sunday Jan 17th**Rest or Active Recovery**

1. Warm Up: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Monday Jan 18th**High Intensity Running**

1. Warm Up: 5 to 10min jogging building up to 70% of HRM
2. Warm Up: 5 to 10min dynamic stretching and mobility
3. Workout: 2 min running @ 85-90% HRM + 1min jogging recovery X 4 reps
4. Workout: 1 min running @ 90% HRM + 30 sec jogging recovery X 8 reps
5. Cool Down: 5 to 10min jogging and walking return to Resting Heart Rate
6. Cool Down: 5 to 10 min Static stretching and ABS

Tuesday Jan 19th**Aerobic Endurance**

1. Warm Up: 5 jogging building up to 70% of HRM
2. Warm Up: 5 easy dynamic stretching and mobility
3. Workout: 15-20 min aerobic endurance running at 70 to 85% of HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Wednesday Jan 20th**Sprint Endurance**

1. Warm Up: 10 min jogging building up to 70% of HRM
2. Warm Up: 10 min dynamic stretching and mobility
3. Workout: 4 x 50m accelerations building up to 90% of sprint max (rolling start)
4. Sprinting @ 90% of sprint max (A little less than all out sprinting)
 - a. 30m sprint + walk back recovery X3
 - b. 40m sprint + walk back recovery X3
 - c. 50m sprint + walk back recovery X3
 - d. 40m sprint + walk back recovery X3
 - e. 30m sprint + walk back recovery X3

Static start position, focus on the making the first few steps powerful

Your heart rate should return to 65% of HRM before the start of each rep.

5. Cool Down: 10 min jogging and walking return to Resting Heart Rate
6. Cool Down: 5 to 10 min Static stretching and ABS

Thursday Jan 21st**Rest or Active Recovery**

1. Warm Up: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Friday Jan 22nd**Aerobic Endurance**

1. Cool Down: 5 jogging building up to 70% of HRM
2. Cool Down: 5 easy dynamic stretching and mobility
3. Workout: 30 min aerobic endurance running at 70 to 85% of HRM + at the end of every 5 min period of time perform a 1min up tempo run at 85 to 90% HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Saturday Jan 23rd**Practice test**

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. Practice Fitness Test: 20-24 X 150 meters @ 30 sec per interval and 35/40 sec rest
4. Cool Down: 5 to 10 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Sunday Jan 24th**Rest or Active Recovery**

1. Warm Up: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Monday Jan 25th**High Intensity Running**

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. High Intensity Workout
 - a. 30 sec @ 85-95%HRM + 30 sec jogging recovery
 - b. 45 sec @ 85-95%HRM + 30 sec jogging recovery
 - c. 60 sec @ 85-95%HRM + 30 sec jogging recovery
 - d. 75 sec @ 85-95%HRM + 30 sec jogging recovery

- e. 60 sec @ 85-95%HRM + 30 sec jogging recovery
 - f. 45 sec @ 85-95%HRM + 30 sec jogging recovery
 - g. 30 sec @ 85-95%HRM + 30 sec jogging recovery
 - h. 2 min jogging recovery
 - i. 75 sec @ 85-95%HRM + 30 sec jogging recovery
 - j. 60 sec @ 85-95%HRM + 30 sec jogging recovery
 - k. 45 sec @ 85-95%HRM + 30 sec jogging recovery
 - l. 30 sec @ 85-95%HRM + 30 sec jogging recovery
 - m. 45 sec @ 85-95%HRM + 30 sec jogging recovery
 - n. 60 sec @ 85-95%HRM + 30 sec jogging recovery
 - o. 75 sec @ 85-95%HRM + 30 sec jogging recovery
4. Cool Down: 5 to 10 min jogging and walking return to Resting Heart Rate
 5. Cool Down: 5 to 10 min Static stretching and ABS

Tuesday Jan 26th

Aerobic Endurance

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 15-30 min aerobic endurance running at 70 to 85% of HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Wednesday Jan 27th

Sprint Endurance

1. Warm Up: 10 min jogging building up to 70% of HRM
2. Warm Up: 10 min dynamic stretching and mobility
3. Workout: 4 x 50m accelerations building up to 90% of sprint max (rolling start)
4. Sprinting @ 90% of sprint max (A little less than all out sprinting)

2 sets x 3 reps 50meter @ 90 % rest 1:30 min between reps and 3 min between sets

Static start position, focus on the making the first few steps powerful

Your heart rate should return to 65% of HRM before the start of each rep.

5. Cool Down: 10 min jogging and walking return to Resting Heart Rate
6. Cool Down: 5 to 10 min Static stretching and ABS

Thursday Jan 28th

Rest or Active Recovery

1. Warm Up: 5 to 10 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Friday Jan 29th

Aerobic Endurance

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 20 min aerobic endurance running at 70 to 85% of HRM + at the end of every 5 min period of time perform a 1min up tempo run at 85 to 90% HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Saturday Jan 30th

Interval Pace Runs

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. Workout: Interval Pace Runs: 12 X 150 meters @ 30 sec per interval and 35/40 sec rest
 - a. Focus on pace and tempo of the run, be relaxed make it feel easy. By this time you should know the pace well enough to run each interval without looking at your watch.
 - b. Be a little more aggressive at the beginning of each interval so that you can coast to the finish line.

- c. At the end of each repetition slowly run or jog into a walk, slowing down quickly will only waste energy.
- d. Practice timing your walking recovery so that you hit the line on the move, the last thing you want to do is get there early and stand or be late and be behind the group.

4. Cool Down: 5 to 10min jogging and walking return to Resting Heart Rate

5. Cool Down: 5 to 10 min Static stretching and ABS

Sunday Jan 31st

Rest or Active Recovery

1. Warm Up: 10 to 15 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Monday Feb 1st

High Intensity Workout

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 8 reps of 1:30 sec high intensity running @ 90 to 95% of HRM (1 min rest)
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Tuesday Feb 2nd

Aerobic Endurance

1. Warm Up: 5 min jogging building up to 70% of HRM
2. Warm Up: 5 min easy dynamic stretching and mobility
3. Workout: 20 min easy aerobic endurance running at 70 to 85% of HRM
4. Cool Down: 5 min jogging and walking return to Resting Heart Rate
5. Cool Down: 5 to 10 min Static stretching and ABS

Wednesday Feb 3rd

Rest Or Active Recovery

1. Warm Up: 10 to 15 min low intensity low impact movement
2. Warm Up: 5 to 10 min static stretching, all major muscle groups

Thursday Feb 4th

Per Test Warm Up

1. Warm Up: 5 to 10 min jogging building up to 70% of HRM
2. Warm Up: 5 to 10 min dynamic stretching and mobility
3. Workout: 2 X 50m easy accelerations
4. Workout: One lap on the track practicing the interval portion of the test
5. Cool Down: 5 to 10 min jogging and walking return to Resting Heart Rate
6. Cool Down: 5 to 10 min Static stretching

Friday Feb 5th

Testing Date