

Speed Training - 40 yard Dash

For a number of sports acceleration and speed over a short distance is very important e.g. American Football, Basket Ball, Baseball, Cricket, Field Hockey, Rugby, Soccer, Futsal (5 a side football) etc.

Before You Start

Prior to starting any training, it is recommended you have a medical examination to ensure it is safe for you to do so. Any application of this training program is at the athlete's own discretion and risk.

Preparation work

What time do I have available for training?

- how long before I have to put my improved acceleration & speed to the test
- how many days each week can I train
- how many times a day can I train

What facilities do I need?

- Somewhere to run - an Athletics Track or sports field
- Somewhere to do exercises - gymnasium
- Somewhere to do strength training - weight training room

What equipment do I need or have access to?

- Appropriate clothing for training in
- Exercises mat
- Free weights for weight training

The preparation of any training program is explained in more detail on the [Planning](#) page.

Training Plan Phases

Split the available training time into two equal periods (phases). If there are 16 weeks available for training then we have 8 weeks for Phase One and 8 weeks for Phase Two. This would allow for two four week cycles in each phase.

Phase One

The objectives of phase one are to develop general strength and general endurance. The workload in the first three weeks of the example plan below increase each week (easy, medium and hard) and the 4th week comprises of

active recovery and tests to monitor training progress. The aim of the 4 week cycle is to build you up to a level of fitness (3 weeks), allow a recovery (1 week), build you up to higher level of fitness, allow a recovery, and so on.

Remember a **training program is athlete specific** and the results of the tests in the 4th week can be used to adjust the training in the next four week cycle to address any limitations.

The pace for each of the running endurance sessions should be between 15 and 20 seconds per 100 metres.

Each session should include an appropriate **warm up and cool down** program.

Week One

Mon	(am) Strength Training General - (pm) 5 km steady run
Tue	Endurance - 2 X 4 X 150 metres (23 to 30 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Wed	Strength Training General
Thu	Endurance - 2 X 3 X 200 metres (30 to 40 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Fri	(am) Strength Training General - (pm) 5 km steady run
Sat	Endurance - 2 X 3 X 250 metres (38 to 50 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Sun	Rest

Week 2

Mon	(am) Strength Training General - (pm) 5 km steady run
Tue	Endurance - 2 X 4 X 200 metres (30 to 40 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Wed	Strength Training General
Thu	Endurance - 2 X 3 X 250 metres (38 to 50 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Fri	(am) Strength Training General - (pm) 5 km steady run
Sat	Endurance - 2 X 3 X 300 metres (45 to 60 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Sun	Rest

Week 3

Mon	(am) Strength Training General - (pm) 5 km steady run
Tue	Endurance - 2 X 4 X 250 metres (38 to 50 seconds)

	Recovery of 2 minutes/repetition and 5 minutes/set
Wed	Strength Training General
Thu	Endurance - 2 X 3 X 300 metres (45 to 60 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Fri	(am) Strength Training General - (pm) 5 km steady run
Sat	Endurance - 2 X 3 X 400 metres (60 to 80 seconds) Recovery of 2 minutes/repetition and 5 minutes/set
Sun	Rest

Week 4

Mon	Strength Training General
Tue	Cooper Test or Multistage Fitness test
Wed	Strength Training General
Thu	400m drop off test
Fri	Strength Training General
Sat	Quadrathlon
Sun	Rest

Strength Training

Examples of general strength training are:

- [Weight Training program - dumbbells](#)
- [Weight Training program - free weights and machines](#)
- [Weight Training program - sprinters](#)

For young athletes, <17 years of age, I would recommend [circuit training](#) in place of the weight training.

Phase 2

The objectives of phase two are to develop specific strength, specific endurance and speed. The workload in the first three weeks of the example plan below increase each week (easy, medium and hard) and the 4th week comprises of active recovery and tests to monitor training progress. The aim of the 4 week cycle is to build you up to a level of fitness (3 weeks), allow a recovery (1 week), build you up to higher level of fitness, allow a recovery, and so on.

Remember **a training program is athlete specific** and the results of the tests in the 4th week can be used to adjust the training in the next four week cycle to address any limitations.

The pace for each of the running sessions can be determined from the calculator provided after the four week program.

Each session should include an appropriate [warm up and cool down](#) program.

Week 1

Mon	Strength Training Specific
Tue	Endurance Specific - 3 X 3 X 40 metres @ 90% effort Recovery of 90 seconds/repetition and 5 minutes/set
Wed	Strength Training Specific
Thu	Speed - 3 X 3 X 30 metres @ 100% effort Recovery of 5 minutes/repetition and 10 minutes/set
Fri	Strength Training Specific
Sat	Speed - 3 X 3 X 60 metres (20m @ 100% + 20m @ 90% + 20m @ 100%) Recovery of 5 minutes/repetition and 10 minutes/set
Sun	Rest

Week 2

Mon	Strength Training Specific
Tue	Endurance Specific - 3 X 3 X 50 metres @ 90% effort Recovery of 90 seconds/repetition and 5 minutes/set
Wed	Strength Training Specific
Thu	Speed - 3 X 3 X 40 metres @ 100% effort Recovery of 5 minutes/repetition and 10 minutes/set
Fri	Strength Training Specific
Sat	Speed - 3 X 3 X 90 metres (30m @ 100% + 30m @ 90% + 30m @ 100%) Recovery of 5 minutes/repetition and 10 minutes/set
Sun	Rest

Week 3

Mon	Strength Training Specific
Tue	Endurance Specific - 3 X 3 X 60 metres @ 90% effort Recovery of 90 seconds/repetition and 5 minutes/set
Wed	Strength Training Specific
Thu	Speed - 3 X 3 X 50 metres @ 100% effort Recovery of 5 minutes/repetition and 10 minutes/set
Fri	Strength Training Specific

Sat	Speed - 3 X 3 X 120 metres (40m @ 100% + 40m @ 90% + 40m @ 100%) Recovery of 5 minutes/repetition and 10 minutes/set
Sun	Rest

Week 4

Mon	Strength Training Specific
Tue	Lateral change of direction test and Leg elastic strength test
Wed	Strength Training Specific
Thu	Flying 30m Test
Fri	Strength Training Specific
Sat	Running-based Anaerobic Sprint Test (RAST)
Sun	Rest

Strength Training

Examples of specific strength training are:

- [Complex training](#) (mix of plyometrics and weights).
- [Plyometrics](#)
- [Plyometric Exercises - Arms](#)
- [Plyometric Exercises - Legs](#)
- [Plyometrics High Intensity Exercises - Legs](#)
- [Weight Training program - sprinters](#)

For young athletes, <17 years of age, I would recommend [circuit training](#) in place of the weight training. The exercises need to be specific to the demands of your sport or event.

Plyometrics

Plyometric drills can be incorporated into the warm up. Conduct 2 or 3 sets over a distance of 20 to 30 metres. Focus on quality and not quantity. Example of plyometric drills are:

- Single leg hops over cones
- Double leg hops over cones
- Zig Zag hops (one legged lateral bounds)
- Alternate Leg running bounds (up stairs)

Sprint Technique

Development of your sprint technique is just as important as the development of your strength and endurance. Guidance on the correct technique for each phase of the sprint is detailed on the [sprint technique](#) page and the [sprint start](#)

page. To assist in the development of your technique see the information contained on the [technique training](#) page.

Technique Runs

As part of each track session, include at the start of the session 6 X 50 metres:

- 1st run only concentrate on running **Tall**
- 2nd run only concentrate on a running **Relaxed**
- 3rd run only concentrate on running **Smoothly**
- 4th run only concentrate on the **Drive** action
- 5th & 6th runs concentrate on them all

Explanation of Tall, Relaxed, Smooth and Drive is detailed on the [sprint technique](#) page.

Evaluation Tests

[Evaluation tests](#) are used to monitor progress and identify limitations. The following are examples of tests that could be conducted every four weeks during Phase One and Phase Two to monitor progress.

Phase 1

- [400m drop off test](#)
- [Cooper Test](#)
- [Illinois agility run test](#)
- [Muscle balance and strength tests](#)
- [Multistage Fitness test](#)
- [Quadathlon](#)

Phase 2

- [Flying 30m Test](#)
- [Illinois agility run test](#)
- [Lateral change of direction test](#)
- [Leg elastic strength tests](#)
- [Muscle balance and strength tests](#)
- [Running-based Anaerobic Sprint Test \(RAST\)](#)
- [T - Drill test](#)

Free Calculator

The following are free Microsoft Excel spreadsheet that you can download and use on your computer.

- [40 yard Training Speed Calculator](#)
- [60 metre, 100 metre and 200 metre time predictions](#)