

Athletics Track Events



Track events are divided into sprint, middle and long distances. In generic sports, sprints rely on strength, speed and aerobic/anaerobic capacities with races from 10 seconds to one minute (100m to 400m). Middle distances have anaerobic power and aerobic capacity components (800m and 1500m), while long distances mainly demand aerobic training for events of three to ten km. Although percentages can vary with different studies, in general, the following energy system contributions are predicted for generic track events:

100m:	20% aerobic;	80% anaerobic
200m:	25% aerobic;	75% anaerobic
400m:	40% aerobic;	60% anaerobic
800m:	60% aerobic;	40% anaerobic
1500m:	80% aerobic;	20% anaerobic
3km:	85% aerobic;	15% anaerobic
5km:	90% aerobic;	10% anaerobic
10km:	95% aerobic;	5% anaerobic

In all events, there are contributions from different energy systems based on the duration of the event. The longer the event, the more aerobic training is needed. SO races for Division one can be 20-30% slower than generic top performers, while slower divisions will be much further behind. Aerobic capacity is by far the first training priority for all SO track athletes.

Aerobic capacity development requires training three times per week with an elevated heart rate. There are different types of training aimed at aerobic gains such as; short and long intervals, high intensity work outs (HIIT), Tabata, long endurance, threshold training etc. Unless they are performed three times per week, minimal progress will be accomplished.

Review

All Track Events require:

**Aerobic and anaerobic capacities
(training at least three times per week)**

For Sprints add more strength, speed and technique training

Basic technical sprint elements are listed in the sprint basic skill (next page) and endurance events on the following page. Sprint is technical in nature while distance testing is based on running performance. These sheets can be used as a guide, and when all skills are marked “yes”, athletes are ready for more advanced intermediate skills.

At basic skill level, SO athletes are encouraged to compete in all track disciplines. Sprint technique (from starting blocks), middle and long distances are all presented together in this document for this purpose. Often SO athletes are entered in sprint distances because they have minimal training preparation. It is my intention to improve health and performance of SO athletes through a complete preparation in all track events.

Guidelines for using the skill sheet for sprints

1. Basic sprints starts with acquiring running technique beginning with arm action followed by knee drive. Practice each skill until acquired.
2. When this is achieved (it can take more than 20 hours of practice and lots of home practice), block starts are initiated.
3. Follow each step of the skill sheet (one at a time) until all basic skills are acquired. Progress will be directly related to the amount of focused practice time.

Guidelines for using the skill sheet for distance events

1. Distance events begins with learning racing rules such as different starts and cutting in to the inside lane. When this is acquired passing skills are introduced followed by running technique.
2. When this is achieved (it can take more than 20 hours of practice), running on the track with specific lap times begins.
3. Follow each step of the skill sheet (one at a time) until all basic skills are acquired. Distance running requires a minimum of 3 training sessions per week.

***** Most Important Learning Concept for SO athletes *****

My numerous years of experience with skill acquisition in Special Olympics have shown that focus on results (external focus) while learning is many times more effective than focus on movements (internal focus). Most skills have “external” objectives such as distance to run, able to self adjust starting blocks and percentages of successful correct tries instead of complicated technical instructions difficult to process for individuals with an intellectual disability. Follow the skill sheets with this in mind and use lots of demonstrations.

Athletics: Sprint Events Basic Skills

Basic Skill: Use block start, accelerate within 15m and maintain speed

(Using 20m under 3 sec. speed)	YES	NO	Comments
Sub Skills			
Arm path (hip to lip)	<input type="checkbox"/>	<input type="checkbox"/>	
Knee drive (height 90°) 	<input type="checkbox"/>	<input type="checkbox"/>	
Body position (Arm up)	<input type="checkbox"/>	<input type="checkbox"/>	
Foot landing  (Heel first – slightly behind)	<input type="checkbox"/>	<input type="checkbox"/>	
A-B-C drill correct execution (March-Skip-March/Skip)	<input type="checkbox"/>	<input type="checkbox"/>	
Maintain speed Reach top speed and maintain for 50m	<input type="checkbox"/>	<input type="checkbox"/>	

Basic Skill: Block Start	YES	NO	Comments
Sub Skills			
Basic self-block adjustment (Less than 2 minutes for set up) 2 steps front, 3 steps back)	<input type="checkbox"/>	<input type="checkbox"/>	
Starting position 	<input type="checkbox"/>	<input type="checkbox"/>	
Reaction time .4sec of less	<input type="checkbox"/>	<input type="checkbox"/>	
Arm up and knee drive 	<input type="checkbox"/>	<input type="checkbox"/>	
Reach top speed in 15m (first 3 steps quickness)	<input type="checkbox"/>	<input type="checkbox"/>	

**When athletes achieve all “YES”, they have acquired basic skills.
Expectations are critical to skill acquisition.**

Athletics: Distance Events Basic Skills

Basic Skill: Run all distances with correct pace (3m or less/lap)

	YES	NO	Comments
Sub Skills			
Start from different lines	<input type="checkbox"/>	<input type="checkbox"/>	
Cut in from lanes (safely)	<input type="checkbox"/>	<input type="checkbox"/>	
Pass (safely and within rules)	<input type="checkbox"/>	<input type="checkbox"/>	
Foot Landing (soft)	<input type="checkbox"/>	<input type="checkbox"/>	
A-B-C correct execution (March-Skip-March/Skip)	<input type="checkbox"/>	<input type="checkbox"/>	
Run 1500 constant lap times (Less than 2 min. 30 sec. per lap)	<input type="checkbox"/>	<input type="checkbox"/>	
Run 5000 constant lap times (Less than 3 min. per lap)	<input type="checkbox"/>	<input type="checkbox"/>	
Race End Kick (Increase speed for 100m after a 3 minutes lap)	<input type="checkbox"/>	<input type="checkbox"/>	
Athletes take own lap times (Using their own watch)	<input type="checkbox"/>	<input type="checkbox"/>	

**When athletes achieve all “YES”, they have acquired basic skills.
Expectations are critical to skill acquisition.**

20-hour acquisition

Skill Breakdown: Examples of priority elements to focus on during practice

With correct demonstrations and video, use of slow demonstrations when introducing a new skill, and using hands to guide movements when necessary.

Spend time on each one until acquired

1. Start: Body position on block – First 3 steps – Arm motion/position – Leg pushes and knee action
2. Sprint Technique: Arm action – Body position – Knees – Head
3. Pacing: Done with interval training
4. Speed/Strength: Done at Club Fit and at home
5. Aerobic/Anaerobic Done at practice and at home

Basic sprint technique (with starts) can be acquired easily within a 20-hour program. Speed and strength developments are long-term objectives.

Aerobic capacity can be developed in a 6-week program only if athletes train a minimum of three times per week (for 60 min.). Anaerobic training requires eight additional weeks starting after four weeks of aerobic training.



Home training

All the following programs can be done at home – using a treadmill is an excellent alternative when weather conditions are difficult. Some advantages of using a treadmill for training include; speed control, athletes are always close by, it's easy to monitor, training PBs for a specific duration and are easily programmable

Home Training Sprint Example: (45' = 45 minutes)

15' Warm up and stretching (with A-B-C track drills)

5' Running warm up

Changing Expectations in Special Olympics

- With accelerations

15' Wall and ABC run drill

50 on each leg



and ABC run drill

10' easy run cool down

Field Sprint Training Example: (1 hour)

Practice only one skill at a time and don't worry about perfect technique, bowl as much as possible.

15' Warm up and stretching (with A-B-C track drills)

5' Running warm up

- With accelerations

30' Block starts

(With video and correct examples, slow down the demonstration when introducing a new skill, use hands to guide movements when necessary and color markers)

1. Get block ready to athletes' specifications (blocks must be installed under 2'). Repeat
2. Horizontal starts from the ground (3 repetitions of 10 m) stay low – arms up.
3. Use hand and colored cones to adjust starting positions

Changing Expectations in Special Olympics



4. 5 Block starts 20m – slow deceleration – focus on technique

10' easy run cool down



Aerobic Examples (for home or field training): 1 hour

15' Warm up and stretching (with A-B-C track drills)

5' Running warm up

- With accelerations

Training short intervals

8 sets of 1' running (85% effort) with 1' rest in between (repeat 2 to 3 times is necessary)

10' easy run cool down

Try to keep the same distance for each interval

Example 2

15' Warm up and stretching (with A-B-C track drills)

5' Running warm up

- With accelerations

Training Tabata

20" run then take 10" walk repeat for 4 minutes (8 runs) take 2' rest and repeat again for a total of 3 "Tabata" of 4 minutes.

10' easy run cool down

Try to keep the same distance for each interval

Example 3

15' Warm up and stretching (with A-B-C track drills)

5' Running warm up

- With accelerations

Training 30" Hills

30" fast run then take 1.30 rest and repeat 6-8 runs

10' easy run cool down

Try to keep the same distance for each interval

Conclusion:

Many track events are considered anaerobic type of events because they are short in duration, and many think that little training is required. Aerobic training at least three times per week is necessary both for basic performances and healthy living. Using the skill sheets is an excellent way to learn basic track skills and encourage athletes to practice often. The more time spent on focused training, the better each SO athlete will become. Shorter distances also require strength training that should be part of Club Fit or personal training.

Once basic sprint technique is acquired (20 hours), athletes will be encouraged to specialize a little more according to their predisposition for an event. Sprinters can easily use their speed and power for long and broad jumps while middle and long distance runners can focus more on distance running and even switch to snowshoeing during winter months.

Lesson Plan
Basic Skill Acquisition Program
(weekly or monthly)

Sport _____ Athlete Name: _____

Program Expectations

1- Weekly Practice (attend all practices)

Day (S) _____ Time _____

Location _____

“What the group is working on”:

2- Club Fit 100% attendance (Including Functional Testing exercises)

Day _____ Time _____

Location _____

“What you need to concentrate on”:

3- Basic Skill Development Homework (4 times per week - 1 hour per day)

Skill _____

“Individual Home Practice Objectives”