

Criteria to initiate program:

* Proper alignment and eccentric control with bilateral and unilateral closed chain movements.
* Complete 4 week return to jogging program to build aerobic base to prepare for more intense runs. Athlete should be able to jog for 10 consecutive minutes prior to starting program. Goal is not speed or distance when jogging 10 minutes but having a solid aerobic foundation to build upon.
* Single leg single hop test and single leg press >70% on Limb Symmetry Index.

Key notes:

* Perform program on every other day basis to allow for 24-48 hours recovery time.
* Perform each level for 2-3 sessions before moving on to next level- move to next level once able to complete with proper mechanics, good strength, and without symptoms.
* Athletes will progress at different rates through the program dependent upon confidence, degree of inflammation, severity of injury, age, and type of surgical intervention. Pain and swelling are the best guides to determining tolerance at each phase and whether an athlete should progress to the next step. Progression through the phases is combined evaluation and guidance of rehab provider and coach.
* Setbacks are common during return to sport progressions and sound judgment should be used regarding an extra rest day(s) or regressing back to prior phase if pain and swelling are problematic.
* Continue with strengthening exercises 2-3 times a week while progressing running program- strengthening exercises may overlap days of running program and be performed after running program; however, must have one complete rest day per week.
* Active warm-up to initiate each session with cooldown following. Ice for 10-15 minutes following session as pain and swelling dictate.

Active warm-up

Pre-running drills (15 yards down and back each): jogging, skipping, side shuffle, backpedal, high knees, butt kicks, grapevine

Dynamic stretching (10 yards down and back each): single leg RDL, quad stretch, side lunge, forward lunge, reverse lunge, knee tucks, glute stretch, inchworms

Footwork drills: speed ladder or hurdles

Cool down

 5-10 minutes global lower extremity stretching

Ice for 10-15 minutes as pain and swelling dictates

Phase I:

* Goal: build confidence with running with low impact, linear running drills with acceleration and deceleration, build confidence with ball handling and passing, no participation in team drills
* Limb Symmetry Index: >70% with single leg single hop and single leg press
* Level 1:
	+ 80 yard run at 50% intensity x 10 repetitions (20 yards to accelerate/decelerate), walk back for full recovery time between repetitions
	+ Backpedal 20 yards x 10 repetitions at 50% intensity
* Level 2:
	+ 80 yard run at 60% intensity x 10 repetitions (15 yards to accelerate/decelerate), walk back for full recovery between repetitions
	+ Backpedal 20 yards x 5 repetitions at 60-75% intensity
	+ Sprint transition at 50% intensity (10 yards forward/10 yards backwards) x 5 repetitions
	+ Sprint transition at 50% intensity (10 yards backwards/10 yards forwards) x 5 repetitions
	+ Focus on planting on involved leg at the transition
* Level 3:
	+ 80 yard run at 60% intensity x 10 repetitions (10 yards to accelerate/decelerate), walk back for full recovery between repetitions
	+ Backpedal 20 yards x 10 repetitions at 75% intensity
	+ Sprint transitions (forwards/backwards and backwards/forwards each 10 yards) x 10 repetitions at 60-75%
	+ “S-run” 20-30 yards x 5-10 repetitions at 50% intensity
		- Start with cones spaced large intervals and progress down to work on changing direction
	+ Box drills at 50-60% intensity (10 yard box; forward, shuffle, backpedal, shuffle)

Sport specific: working on fundamental skills (20 minutes, 3 times a week) consisting of cradling, scooping, and throwing/catching at 10 yards with controlled effort

Phase II:

* Goal: speed development and running technique, initiate change in direction with visual stimulus of place to change direction progressing to auditory stimulus, build up to multidirectional speed at 75% intensity to progress to Phase III
* Level 1:
	+ 100 yard run at 60-75% intensity x 10 repetitions, walk back for full recovery between repetitions
	+ Sprint transitions at 75% intensity (forwards/backwards and backwards/forwards each at 10 yards) x 10 repetitions
	+ Cone drills/cutting for 20-30 yards x 4 repetitions at 50% intensity
		- Focus on getting low and bending knees to change direction, plan with outside foot. Gradually move cones closer for a sharper angle cut.
	+ Box drills at 60-75% intensity (10 yard box; forward, shuffle, backpedal, shuffle)
* Level 2:
	+ 100 yard run at 75% intensity x 8 repetitions, walk back for full recovery between repetitions
	+ 60 yard run at 75% intensity x 6 repetitions, walk back for full recovery between repetitions
	+ Cone drills/cutting for 20-30 yards x 4 repetitions at 75% intensity
	+ Cone drills/cutting for 20-30 yards x 4 repetitions at sharper angle at 50% intensity
	+ Backpedal cone drills for 20-30 yards x 4 repetitions at 50% intensity
	+ Box drills at 75% intensity (10 yard box; forward, shuffle, backpedal, shuffle) with visual stimulus to change directions
* Level 3:
	+ 100 yard run at 75% intensity x 8 repetitions, walk back for full recovery between repetitions
	+ 60 yard run at 75% intensity x 6 repetitions, walk back for full recovery between repetitions
	+ 40 yard run at 75% intensity x 4 repetitions, walk back for full recovery between repetitions
	+ Cone drills/cutting for 20-30 yards x 4 repetitions at 60-75% intensity (sharper angle)
	+ Backpedal cone drills for 20-30 yards x 4 repetitions at 60-75% intensity
	+ Backpedal cone into sprint with reacting to direction (lateral, forward, forward angle) at 50% intensity
	+ 50% intensity for shuttle 5yd-10yd-15yd x 4 repetitions
	+ Box drills at 75% intensity (10 yard box; forward, shuffle, backpedal, shuffle) with auditory stimulus to change directions
* Level 4:
	+ 100 yard run at 80% intensity x 8 repetitions, walk back for full recovery between repetitions
	+ 60 yard run at 80% intensity x 6 repetitions, walk back for full recovery between repetitions
	+ 40 yard run at 80% intensity x 6 repetitions, walk back for full recovery between repetitions
	+ Backpedal cone into sprint with reacting to direction (lateral, forward, forward angle) at 60-75% intensity
	+ Backpedal into turn and run at 50% intensity
	+ 60-75% intensity for shuttle 5yd-10yd-15yd x 4 repetitions
	+ Linear run at 50% into jump stop
		- Start with athlete chosen stop and progress to visual or verbal instruction to stop
	+ Backpedal run at 50% into jump stop
	+ Lateral shuffle at 50% into jump stop
	+ Lateral shuffle into sprint forward or forward angle at 50%
* Level 5:
	+ 100 yard run at 85-90% intensity x 10 repetitions, walk back for full recovery between repetitions
	+ 40 yard run at 85-90% intensity x 6 repetitions, walk back for full recovery between repetitions
	+ Backpedal cone into sprint with reacting to direction (lateral, forward, forward angle) at 75% intensity
	+ Backpedal into turn and run at 60-75% intensity
	+ 60-75% intensity for shuttle 5yd-10yd-15yd-20yd x 4 repetitions
	+ Linear run at 60-75% into jump stop
	+ Backpedal run at 60-75% into jump stop
	+ Lateral shuffle at 60-75% into jump stop
	+ Lateral shuffle into sprint forward or forward angle at 60-75%

Sport specific: fundamental skills (20 minutes, 3 times a week) consisting of cradling, scooping, throwing and catching at 20 yards progressing in distance with moderate effort using both legs

Phase III:

* Goal: build repeated sprint ability, introduce sport-specific demands with participation in non-contact team drills, change in direction with reactive or auditory stimulus, linear speed at 90-100% intensity, multidirectional speed at 75% intensity progressing to 100% intensity
* Options:
	+ 5yd-10yd-15yd shuttle x 4-6 repetitions
	+ 300 yard shuttle x 4-6 repetitions
	+ 100 yard repeats x 10-15 repetitions (goal time of 20 seconds work:40 second jog back to start)
	+ 80 yards x 6 reps, 60 yards x 6 reps, 40 yards x 4 reps, 20 yards x 4 reps

Sport specific: fundamental skills (30 minutes, 3 times a week) including non-contact team drills, independent shooting, unlimited distance with passing

Phase IV:

* Goal: maximal speed including changes in direction, acceleration, and deceleration, technical skills progression and participation in team drills with limited contact
* Participation in team conditioning at full intensity

Sport specific: ball skills (40 minutes, 3 times a week) consisting of team drills with controlled contact (initiate contact against unmoving object, contact while running by expected force)

Phase V:

* Goal: full contact in training sessions with all scenarios (change in direction, speed, jumping, tackling, etc) to prepare for game play
* Participation in team conditioning at full intensity

Sport specific: full contact in scrimmage situations with initial limited minutes progressing to unlimited playing time