



Guidelines:

- All skills should be performed in the presence of an Athletic Trainer, Physical Therapist, or qualified coach to stress proper mechanics.
- The athlete must pass all functional tests on a field before beginning Return to Soccer Protocol.
- The athlete may progress through the steps and phases as tolerated, performing one phase every other day with cross-training on off days.
- The athlete should only progress to the next step of each phase if he/she is able to complete the current step without pain or difficulty.
- Each phase should be tolerable and comfortable and be completed without swelling or decreased ROM.
- Emphasis should be placed on developing and maintaining proper mechanics without developing symptoms.
- The athlete should ice the affected extremity for 20 minutes following the activity.

Phase 1

Progression of Running and Soccer Drills

1. Fast paced walk the length of the field.
2. Jogging high knees to midfield, back kicks back to the end line.
3. Forward lunge to midfield and back to end line.
4. Jog down the field and back.
5. Side lunge to midfield and back.
6. $\frac{3}{4}$ speed sprint length of field, down and back.
7. Full speed sprint length of field, down and back.
8. Diagonal hops, midfield and back.
9. "Suicide" line touches at $\frac{3}{4}$ speed.
10. Agility ladder drills: Figure 8, X-Lane Drill, M Drill, ZigZag, and T Drill. **See attached sheet for drill descriptions.

****No Passing or dribbling until phase 2.**

Phase 2

Progression of Running and Soccer Drills

1. Jog down the field and back, 2X
2. Jogging high knees to midfield, back kicks back to the end line.
3. Forward lunge to midfield and back to end line.
4. Side lunge to midfield and back.
5. $\frac{3}{4}$ speed sprint length of field, down and back.
6. Full speed sprint length of field, down and back, 2X
7. Diagonal hops, midfield and back.
8. "Suicide" line touches at $\frac{3}{4}$ speed.
9. "Suicide" line touches at full speed.
10. Agility ladder drills: Figure 8, X-Lane Drill, M Drill, ZigZag drill, and T Drill. **See attached sheet for drill descriptions.

Passing with a Teammate

- Side footing: start with standing ball and move through the progressions, then progress to a moving ball both on the floor and on the volley.
 - Short distances
 - Longer distances
 - Greater velocity on the pass

Dribbling – Full length of field for each Step

- Straight-line ball control
- Forward/backward turns
- Instep ball control
- Outstep ball control

Phase 3

General conditioning, skill work; individually and with a team-mate:

- Continue with general conditioning (up to 60 minutes). Begin interval training (jog for 1 minute, then sprint for 20 seconds).
- Continue partner drills, but with no contact. Continue with individual skill work as per phase 2.
- Continue with partner passing and kicking on goalie drills.
- Begin walk-throughs on offense and defense.

Passing: forefoot (on the laces)

- Short distances
- Longer distances
- Greater velocity on the pass: same as with the side-foot pass. Once moved through the progressions, progress to moving the ball on the floor first, then eventually on the volley.
 - Volleys side foot/laces/outside of foot
 - Volleys with quick-feet: incorporate quick-feet and volley to ladders/hurdles/left-right foot on command, quick reaction volley drills

Lateral dribbling movements

- Long distances
- Short distances
- At speed
- Side movement with the ball, changing direction on command, with speed

Phase 4

General conditioning, skill work and team drills:

- Do not play live scrimmages. NO CONTACT
- Resume regular conditioning and duration of practice.
- Practice team passing and kicking drills, practice offensive, defensive and counter attack tactical schemes with no contact to the player.
- Review heading the ball techniques. Do a few reps of low intensity with limited height and distance.

Phase 5

Full Team Practice with Body Contact:

- Join team in a full practice to get yourself back in the lineup. If a full practice is completed with no symptoms, you are ready to return to competition.

Phase 6

Full Team Practice with Body Contact:

- Discuss with the coach about getting back in the next game
- Agility Training

Rate of Progression

Close supervision of the program is essential. Each athlete will progress at his own rate. Mild soreness and stiffness is to be expected; however, if any pain is felt in the shoulder or elbow, throwing should be stopped until pain free. The athlete is not allowed to progress to the next phase unless he can complete the previous phase pain free.

Warm Up and Stretching

The athlete should begin each session with jogging or other light activity to increase circulation and muscle temperature. This should be followed by stretching for the full body, including legs, trunk, shoulder, and arm prior to beginning the warm up throws.

Weight Training

Maintaining proper strength and endurance of the rotator cuff and upper back musculature is essential to long term success. Strength training should consist of low weight, high repetition exercises to target these muscles. They should be performed on throwing days, but only after throwing has been completed.

Mechanics

Proper mechanics of throwing is essential in reducing stress and injury. The athlete's coach should be enlisted to aid in achieving a normal and consistent throwing motion. The crow-hop method (first a hop, then a skip, followed by the throw) may be used to ensure proper alignment of the body to begin the throwing motion. Flat-footed throwing encourages improper mechanics, and should be avoided. The ball should be thrown just hard enough to reach the target.

Variations

- 1) Mirror throwing
- 2) Frequency
- 3) Count throws
- 4) Intervals
- 5) Youth athletes (i.e. those playing on a smaller field) may modify by starting Phase I at 30 feet, and work up to 90 feet as a max distance before starting Phase II
- 6) Adapt to other sports

Phase I - Sample Progression

Begin with warm up and stretching as described on the first sheet. Do 5 minutes of easy warm up throwing at about 30 feet and then gradually move back to the prescribed distance. You can throw 2 days in a row or every other day. Plan this around your practice schedule and weather forecast for the upcoming week. Rest on any day that persistent soreness or pain in the shoulder or elbow is present. Once at 90 feet and beyond, return to 60 feet for the last 5 minutes of throwing if you are a pitcher. This will give you extra practice at locating your throws and hitting targets.

Day 1	Throw 45'	10 minutes	Day 15	Throw 120'	15-20 minutes
Day 2	REST		Day 16	REST	
Day 3	Throw 45'	15 minutes	Day 17	Throw 150'	15 minutes
Day 4	REST		Day 18	REST	
Day 5	Throw 60'	15 minutes	Day 19	Throw 150'	15-20 minutes
Day 6	REST		Day 20	REST	
Day 7	Throw 60'	15-20 minutes	Day 21	Throw 180'	15 minutes
Day 8	REST		Day 22	REST	
Day 9	Throw 90'	15 minutes	Day 23	Throw 180'	15-20 minutes
Day 10	REST		Day 24	REST	
Day 11	Throw 90'	15-20 minutes	Day 25	Begin Phase II making throws from position or begin mound routine (next page) at 50% effort.	
Day 12	REST				
Day 13	Throw 120'	15 minutes			
Day 14		REST			

Phase II - Sample Progression

After the athlete is able to throw 180 feet for 15-20 minutes without pain, specific position drills may begin. Pitchers begin throwing fastballs (FB) only at 50% effort from the mound. Position players may throw in drills starting at 50% effort. Sample progressions follow. Use interval throwing to 120 feet as warm up. If you are not old enough to throw breaking balls (BB) then substitute with change ups.

Pitchers

Day 1	Interval throwing to 120 feet as warm up.	50% FB only – 25 throws
Day 2	OFF	
Day 3	Interval throwing to 120 feet as warm up.	50% FB only – 35 throws
Day 4	OFF	
Day 5	Interval throwing to 120 feet as warm up.	75% FB only – 35 throws
Day 6	OFF	
Day 7	Interval throwing to 120 feet as warm up.	75% FB only – 50 throws
Day 8	OFF	
Day 9	Interval throwing to 120 feet as warm up.	75% FB – 40 throws; 50% BB – 20 throws
Day 10	OFF	
Day 11	Interval throwing to 120 feet as warm up.	90% FB – 30 throws; 75% BB – 20 throws
Day 12	OFF	
Day 13	Interval throwing to 120 feet as warm up.	95% FB – 30 throws; 95% BB – 20 throws

Day 14	OFF
Day 15	Simulated Game – 2-3 innings
Day 16	5-10 minutes interval throwing to 90 feet
Day 17	Simulated Game – 2-3 innings
Day 18	5-10 minutes interval throwing to 90 feet
Day 19	OFF
Day 20	Live scrimmage
Day 21	5-10 minutes interval throwing to 90 feet
Day 22	OFF
Day 23	Released for competition

Fielders – Start with 25 throws and work up 30-40 throws

Day 1	50% effort	Day 8	90%
Day 2	50%	Day 9	OFF
Day 3	OFF	Day 10	95%
Day 4	75%	Day 11	95%
Day 5	75%	Day 12	OFF
Day 6	OFF	Day 13	Live Scrimmage (95%)
Day 7	90%	Day 14	Released for competition

Suggested Readings

Davis JT, Limpisvasti O, Fluhme D, Mohr KJ, Yocum LA, Elattrache NS, Jobe FW. The effect of pitching biomechanics on the upper extremity in youth and adolescent baseball pitchers. *Am J Sports Med.* 2009 Aug; 37(8): 1484-91.

Reinold MM, Wilk KE, Reed J, Crenshaw K, Andrews JR. Interval sports programs: Guidelines for baseball, tennis, and golf. *J Orthop Sports Phys Ther.* 2002 June; 32(6): 293-298.

Wilk KE, Obma P, Simpson CD, Cain EL, Dugas J, Andrews JR. Shoulder injuries in the overhead athlete. *J Orthop Sports Phys Ther.* 2009 February; 39(2): 38-54.