

YOUTH BASEBALL/SOFTBALL

Arm Care and Shoulder Injury Prevention in Young Athletes -- a Strategy that Prevents Injury and Strengthens the Shoulder

ShoulderSphere® Instructions for Use

Correct position: ensure your wrist is relaxed and has complete contact against the plastic splint while being securely strapped in by the elastic strap. Relatively tight engagement is necessary in order to optimize the rotator cuff workout. Make sure there is no wiggle room between your wrist and the splint. This also avoids undue stress against the plastic splint, which may cause breakage.

The easiest way of putting on the ShoulderSphere® is to place it on top of your hand -- PALM facing UP - and gently cradle it, making sure that the strap is wrapped securely, particularly the part at wrist level.



Incorrect position: note in the image below how the wrist is tense and flexed against the splint. There is a large gap between the splint and the wrist, which creates undue three-point contact stress against the plastic splint. This will break the plastic splint. There should be no wiggle room in-between the skin and the plastic splint. Incorrect posture prevents an optimal rotator cuff workout.



Injury risk predictor

For those who struggle throwing to get above 50 — use the F2.

For those easily and consistently can throw 70 — can use the A7

Between 50 and 70 — do the A7 “qualifying test” by giving the following F2 test —

Use the F2 to do simulation throw from arm slot on top all the way down to follow through in a deliberate 3 second move, then back up. Repeat 10 times — IF player can keep the tracker in RED continuously for the entire 10 reps — THEN strong enough to use A7 — otherwise not strong enough to use — like trying to drive the Ferrari before mastering the Hyundai.

High School

Age group 15-17
Height average 5'10"

Per 7 inning game --

Pitcher -- 60 pitches / average 70 mph
Catcher -- 60 throws / average 60 mph
Fielder -- 20 throws / average 60 mph

Studies show it takes 10 weeks of disciplined training , every other day, to show measurable improvement in shoulder strength and throwing velocity.

Start training preferably 10 weeks prior to the start of season to ensure in-season safety and performance.

PITCHER PROGRAM --

Use the A7 ShoulderSphere and keep the ball rotating to engage the ROTATOR CUFF MUSCLES (RC) . If the ball bounces, RC has lost its engagement. MUST keep the ball rotating in order to reap the benefits of RC strengthening.

Simulate and "mirror" as closely as possible the movement of the pitching/ throwing motion. The goal is NOT to go through the motion quickly, but deliberately and with pace -- about 3 seconds for one cycle of completion of starting from arm slot position go across the body diagonally, then move back up to starting arm slot position. This is to be done all the while keeping the ball rotating within the sphere... no dropping!

Do not need to be concerned with the electronic tracker for throws that stay below 90 mph. IF the pitcher is so good as to say he wants to throw 90 -- then he better be able to simulate the pitch move up down and back up all the while keeping the light of the tracker in RED. (this signifies enough power reserve in the RC to withstand the dislocating force of the shoulder in a 90 mph pitch) -- if unable to keep in red ... then the shoulder will be prone to injury if trying to pitch repeatedly at 90. For overall training purposes, keeping in green light would suffice.

Train only every other day , 3 days a week , to give recovery time and muscle build time.

Week 1 : 3 reps of pitching motion, no stop in between. Must be perfectly executed. Not to rush through motion. Focus on keeping the ball rotating. Rest and stretch 15 seconds before starting set 2. Do total 3 sets. (i.e. Only 9 pitch moves). This takes just about 1 minute including rest time between sets.

Week 2 : 4 reps, 3 sets

Week 3 : 5 reps, 3 sets

Week 4 : 6 reps, 3 sets

Week 5 : 8 reps, 3 sets

Week 6 : 10 reps, 3 sets

Week 7 : 12 reps, 3 sets

Week 8 : 15 reps, 3 sets

Week 9 : 18 reps, 3 sets

Week 10 : 20 reps, 3 sets

SO, by the 10th week, the pitcher should be able to simulate total of 60 pitches . This will give confidence in a strong RC to meet the demands of 60 pitches in a game.

This may be served as a predictor of "pitch count". If the player is only able to do, for example, 15 reps 3 sets without feeling fatigued, then one may anticipate only pitch 45 times in a game, otherwise will risk injury. The player must demonstrate completion of the above workout program, otherwise injury rate will be high.

60 pitches -- must be able to demonstrate ease of use of A7 : 20 reps- 3 sets.

CATCHER PROGRAM

Same schedule routine as pitcher -- with the EXCEPTION-- all training needs to be done in the kneeling position as a catcher and motion throws to mirror exactly how it is done in a game. Event driven, activity specific in order to reap the results of ShoulderSphere program.

FIELDER PROGRAM

Standing throwing motion simulation

Week 1 : 3 reps, 3 sets

Week 2 : 4 reps, 3 sets

Week 3 : 5 reps, 3 sets

Week 4 : 6 reps, 3 sets

Week 5 : 7 reps, 3 sets

Week 6 : 8 reps, 3 sets

Week 7 : 9 reps, 3 sets

Week 8 : 10 reps, 3 sets

Week 9 : 10 reps, 3 sets

Week 10 : 10 reps, 3 sets

In-Season

2x / week at 1/3 volume

Pitcher Catcher 2x/wk 10 reps, 2 sets

Fielder 2x/wk 10 reps, 2 sets

Here are the elements to high school injury prevention and shoulder strengthening program utilizing the ShoulderSphere ----

1) off season training -- 3 times per week training
In season -- once, not more than twice a week training

2) event driven throwing exercise -- player mimics as closely as possible the condition under which they throw-- e.g. the catcher would simulate throwing motion with deliberate intention over 3 seconds the throwing move in the kneeling posture. The pitcher simulates pitching move over a 3 second deliberate intention all the while maintaining the spin of the ball inside the sphere -- the faster the spin of the ball , the greater the power workout for the rotator cuff -- that's when the Tracker lights up red -- the "powerball" workout!

Positional players simulate throwing with different hand positions e.g. throwing overhead, underarm, or side ways. These moves foster neuromuscular training to teach rapid engagement of the rotator cuff muscles to respond to those situations to maintain shoulder stability, thus prevent injury.

3) volume of workout -- refer to the 10 week progressive build up program.