

A close-up photograph of a swimmer in a pool. The swimmer is wearing a black swim cap and blue goggles, and is smiling broadly with one arm raised in a celebratory gesture. Water splashes around her. The background is a bright, clear blue sky.

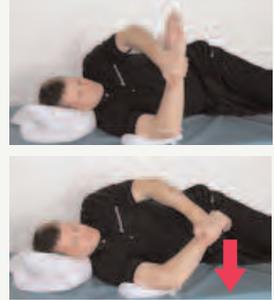
Fundamental Exercises for the Overhead Athlete

Stretches for the Overhead Athlete

Hold stretches for 20-30 seconds and repeat at least 2 times on each side

Sleeper stretch

Lie on your side as shown. Line elbow up with shoulder and keep elbow bent to about 90 degrees. Use other arm to gently push the hand downward toward the floor. Hold for 20-30 seconds. Do not over stretch and do not cause pain at the shoulder.



Cross body stretch

Bring arm across body with elbow straight. Hold the elbow with the other arm and gently pull across your body until a gentle stretch is felt in the back of the shoulder.



Standing pec stretch

Standing in a corner place arms at chest level on the wall. Step forward and keep back straight. Keep all your weight on your feet (this is not a push up) as you feel a stretch in your chest region. Do not shrug your shoulders.



Hip flexor stretch

Start in half kneeling position. Shift the body forward by lunging slightly through the front leg. Feel a gradual pull through the front of the back hip. Elevate your arm (on the same side as your back leg) overhead then pull the shoulder blade down and back toward the opposite rear pocket.

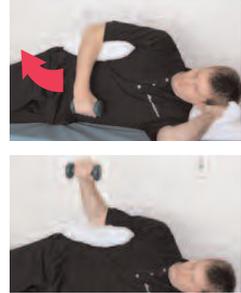


Recommended Exercises

Do 15 reps of each resistance exercises, 2 times each side. If the exercise is too easy or hard, increase or decrease the resistance/weight, respectively. As with all shoulder strengthening exercises, do not shrug your shoulders.

Sidelying rotation with weight

Lie on your side with your elbow bent. Place pillow between your arm and your body. Rotate hand upward while maintaining your elbow in contact with the pillow.



Shoulder rows

Lie on your stomach with arms out at your sides elbows bent. Squeeze your shoulder blades as your elbows move upward toward the ceiling, hold for a count of 5.



Shoulder lifts

Hold arms out to your side with thumbs pointing to the ceiling. Squeeze shoulder blades together as you lift your arms upward toward the ceiling while keeping elbows straight, hold for a count of 5.



Shoulder Y's

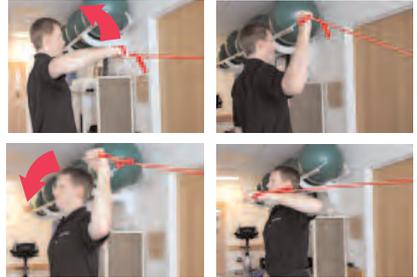
Hold arm out to your side with elbow straight – in a “Y” position – keep thumbs upward pointing at ceiling. Raise arms up toward the ceiling, hold for a count of 5.



Standing rotation

Standing with arm at about 90 degrees out to the side as shown. Tie band below your shoulder height and rotate arm behind you. Maintain good posture.

Repeat with the band behind and above you. Bend elbow 90 degrees and move arm downward by pivoting at the elbow.



Serratus bear hug

Stand with your upper arms level at side with elbow bent. Move arms upward and slightly inward. Hold for 3 count then slowly relax to start position.



Diagonal strengthening 1

A) Attach elastic band above shoulder height and behind you as shown. Grab the band with your arm facing forward. Pull your arm down and across your body and turn palm inward. Slowly return to starting position.

B) Repeat with the above motion in the opposite direction with the band attached below your waist as shown.

C) Complete these exercises standing on one leg to increase the challenge.



Adolescent Baseball Guidelines

Pitch count recommendations:

Age	Max per day
7-8	50
9-10	75
11-12	85
13-14	95
15-16	95
17-18	105

Source: 2008 Little League Baseball Regulations

Days of rest required based on pitch count:

Pitch count (ages 11-14)	Pitch count (ages 17-18)	Days of rest required after pitching
21-40	26-50	1
41-60	51-75	2
>60	76-105	3

Ages 9-10: limit pitch count to 75 per week, 1000 pitches per season, and 2000 per year (based on 2006 USA Baseball Guidelines)

Source: 2008 Little League Baseball Regulations

Age recommended for pitch types:

Pitch	Age
Fastball	8 ± 2
Slider	16 ± 2
Change-Up	10 ± 3
Forkball	16 ± 2
Curveball	14 ± 2
Knuckleball	15 ± 3
Screwball	17 ± 2

Source: From work by James R. Andrews, MD and Glenn S. Fleisig, PhD

Tips to prevent overhead injuries

- For baseball, follow above pitch counts; avoid playing catcher when not pitching
- With symptomatic shoulder, need rest and rehab before returning to sport
- Complete warm up and stretching exercises before playing all sports
- Maintain your shoulder strength between seasons (complete the listed exercises in this handout)
- If you have pain, use ice for 20 min after playing and allow healing time (do not return to sport the following day).

Helpful websites

stposportsinjuries.org/files/pdf/AOSSM_Baseball.pdf

littleleague.org/Little_League_Online.htm

Tips for Swimmers

- Due to the increased overhead arm rotations during swimming season, your training should match the demand - increase reps of the exercises listed, but decrease weight
- Injury may be caused by biomechanics during your stroke - "dropping the elbow" during hand entry when doing the freestyle
- You may need a mechanics assessment as well as strengthening for weakness
- Breathe to both sides to increase symmetry and decrease stress at the dominant shoulder
- You should not increase your distance by greater than 10% per week

Recommended Exercises

Diagonal strengthening 2

A) Attach elastic band above shoulder height to your side as shown. Grab the band with your palm facing inward. Pull your arm down and across your body and turn palm backward. Slowly return to starting position.



B) Repeat with the above motion in the opposite direction with the band attached below your waist as shown.



C) Complete these exercises standing on one leg to increase the challenge.

Sidelying hip abduction

Lie on your side. Keep your top leg straight and in line with your body. Lift the top leg upward toward the ceiling. Do not turn your foot upward – keep the foot facing forward.



Side plank

Lie on your side with your legs straight and body in a straight line. Push your body upward with your elbow as shown. Hold your hips in the air in straight line. Complete the following to increase challenge of exercises during the side plank:

1. Complete sidelying hip abduction exercise while in the plank position.
2. Complete the sidelying rotation with weight exercise while in the plank position.



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