

# APPENDIX A: SPEED DEVELOPMENT PLAYBOOK

## DYNAMIC WARM-UP

### General Warm-up

#### Forward Skips with Arms Swings

Skip forward while swinging your arms back and forth.

#### Backward Skips with Arm Circles

Skip backward while doing forward arm circles.

#### Linear Wall Swings

Swing inside leg with inside arm supported on the wall while standing on the outside ball of your foot..

#### Lateral Wall Swings

Face a wall in acceleration position on the balls of your feet; swing leg with toe up.

## Active Stretching

#### Prisoner Squats

Squat as deep as possible with your fists on your temples.

#### Walking Quad/Hip Stretch

Catch your ankle with your opposite hand behind your butt and pull.

#### Lunge Elbow to Instep

Lunge forward and put your right hand on the ground next to your left foot. Drive your left elbow to the instep. Stand up and repeat.

#### Lateral Slides

Stay low and slide without your heels touching.

## **Stationary Lateral Lunges**

Stand on the line with your feet wide, toes straight ahead, and lunge side to side with your butt going backwards.

## **Drop Step Skip**

Skipping backwards with shoulders square, externally rotate the hips.

## **Forward A-Skips**

Skip forward. Focus on keeping your toes up while staying on the ball of your foot to create a “spring” in your calf.

## **Active Calf Stretch**

Hold the top of your push-up position and drive your right knee forward, allowing your left calf to stretch. Replace and repeat.

## **Straight Leg March**

Kick your left foot in front of you and touch your right hand. Snap the left foot back to the ground, landing on the ball of the foot.

## **Walking Glute (Piriformis) Stretch**

Bend your knee, crossing your ankle over knee, and pull your ankle with both hands up.

## **Walking “T” Balance**

Kick one leg behind (in a single leg RDL) as you raise your hands overhead (in Superman position).

# **PLYOMETRICS**

## **Linear Jumps**

**Linear Broad Jump with Stabilization**

**Linear Broad Jump Doubles**

**Linear Broad Jump Continuous**

**Lateral Broad Jump**

**Squat Jump**

**Single Leg Squat Jump**

**Jump Rope**

**Hill Broad Jump**

**Hill Broad Jump Doubles**

**Hill Broad Jump Triples**

## Lateral Jumps

**Inside Edge Lateral Line Bound with Stabilization**

**Inside Edge Lateral Line Bound Doubles**

**Inside Edge Lateral Line Bound Triples**

**Inside Edge Lateral Line Bound Continuous**

**Outside Edge (X-Over) Lateral Line Bound with Stabilization**

**Outside Edge (X-Over) Lateral Line Bound Doubles**

**Outside Edge (X-Over) Lateral Line Bound Triples**

**Outside Edge(X-Over) Lateral Line Bound Continuous**

## Throws

All throws listed are partner-based, thrown back and forth to engage more athletes at once. However, if you have access to a concrete wall, please make use of it.

### **Partner Medicine Ball Rotation Throws**

For this movement, think baseball swing.

### **Partner Medicine Ball Shuffle Rotation Throws**

For this movement, think of a lateral shuffle transitioning into a baseball swing.

### **Partner Medicine Ball Lateral Hop Rotation Throws**

Hop from your left to your right foot, change directions, and throw the medicine ball to the left for distance.

### **Partner Medicine Ball Forward Scoop Throws**

For this movement, think of a forward deadlift throw.

### **Partner Medicine Ball Reverse Scoop Throws**

For this movement, think of a backwards deadlift throw, overhead.

### **Partner Medicine Ball Acceleration Throws**

Pick up the medicine ball from the ground and throw it for distance.

### **Partner Medicine Ball Squat Press Throws**

Perform this throw for distance or height.

## **ACCELERATION**

### **Resisted (Band or Bungee) Acceleration Skip**

### **Light Sled Push**

### **Moderate Sled Push**

### **Partner Sled Push**

### **Hill Sprints**

### **Stadium Stairs**

### **Linear Bounding**

### **Lateral Bounding**

### **X-Over Bounding**

### **10-yard Sprint**

### **Resisted (Band or Bungee) 10-yard sprint**

## **CHANGE OF DIRECTION**

### **3 Cone Drill**

### **60-yard Shuttle**

### **Pro Agility (5–10–5 Drill)**

**“W” Drill**

**“T” Drill**

**Ice Skater Jump to Forward Sprint**

**Squat Jump to Forward Sprint**

**Ice Skater Jump to X-Over Sprint**

**Squat Jump to X-Over sprint**

**Ice Skater Jump to Forward Sprint**

**5-yard Backpedal Sprint to 5-yard Forward Sprint**

**5-yard Forward Sprint to 5-yard Backpedal Sprint**

**5-yard Backpedal Sprint to 5-yard Angled Sprint**

**5-yard Forward Sprint to 5-yard Angled Backpedal Sprint**

## REACTIVE AGILITY

Note: Almost any Change of Direction drill can become a Reactive Agility drill by adding cognitive, visual, or verbal cues at the start.

### Cognitive

Cueing the athlete to start the drill based on a color, number, or pattern.

#### **Push-Up Sprints**

Start 20-yard sprints on “RED”

#### **Competition Pro Agility Drills**

Drill starts on “EVEN NUMBER”

#### **Wheel Drill to Colored Cones**

Cue: “COLOR”

#### **Pro Agility Drills**

Go right on “EVEN NUMBER”

Go left on “ODD NUMBER”

## Visual

Cueing the athlete to start the drill based on any visual movements like a pitchers move to first or home.

### **Competition Push-Up Start 20-yard Sprints**

Drill starts on the first movement of lead athlete.

### **Competition Pro Agility**

Drill starts on the first movement of lead athlete.

### **Tennis Ball Drop Sprint**

Drills starts on first drop of the tennis ball.

### **Partner Mirror Lateral Movement Drill**

## Verbal

Cueing the athlete to start the drill based on a command or cadence like, “Go,” or “Ready, Set, Go.”

### **Competition Half Kneeling**

Start 20-yard sprints on “GO”

### **3 Cone Drill**

Drill starts on whistle.

### **Change of Direction “W” Drill**

Athlete changes direction within the “W” drill on cue from whistle.

## OVER SPEED

**Light Assist** (Band, Bungee, or Tow Strap) Sprint

### **Downhill Sprint**

Sprint the last 5–10 yards of the hill.

## FULL SPEED

**20-yard Swim Noodle Chase Drill**

**30-yard Swim Noodle Chase Drill**

**40-yard Swim Noodle Chase Drill**

**20-yard Angled Swim Noodle Chase Drill**

**30-yard Angled Swim Noodle Chase Drill**

**40-yard Angled Swim Noodle Chase Drill**

**Flying 20's**

Build up speed to 20-yard Full Effort Sprint.

**Flying 30's**

Build up speed to 30-yard Full Effort Sprint.

**Flying 40's**

Build up speed to 40-yard Full Effort Sprint.

**Circle Chase Sprints**

# APPENDIX B: VERTICAL JUMP PLAYBOOK

**T**his section is designed to build on the information presented in the jump section of the Tier 2 core lifts and expand on the three types of jumps:

1. Deceleration
2. Acceleration
3. Hybrid

While I do categorize each type of jump as above, you will see some crossover, as some jumps have multiple purposes. In addition, I take the foundational jumps (squat jump for vertical power and broad jump for horizontal power) and progress them with multiple progressions:

- Double leg to single leg
- Simple to complex
- Single jump to multiple jumps
- Single plane jump (vertical or horizontal) to multiple plane jump (vertical to horizontal)
- Deceleration/isometric jumps before acceleration jumps

## **DECELERATE/ABSORB FORCE JUMPS**

*All “drop” exercises start in a standing position on your toes, and then you “drop” into the position listed.*

- Drop Squat
- Drop Split Squat

- Drop Single Leg Squat (both legs)
  - Double Leg Standing to Single Leg Squat Landing
  - Single Leg Standing to Single Leg Squat Landing
- Depth Drop (from a box) to Double Leg Landing
- Depth Drop (from a box) to Single Leg Landing

*All isometric exercises refer to sticking the landing like a statue.*

- Squat Jump Isometric series
  - Squat Jump Isometric Landing
  - Single Leg Squat Jump to Double Leg Isometric Landing
  - Double Leg Squat Jump to Single Leg Isometric Landing
  - Single Leg Squat Jump to Single Leg Isometric Landing
- Broad Jump Isometric
  - Broad Jump Isometric landing
  - Single Leg Broad Jump to Double Leg Isometric Landing
  - Double Leg Broad Jump to Single Leg Isometric Landing
  - Single Leg Broad Jump to Single Leg Isometric Landing
- Lateral Broad Jump Isometric
  - Lateral Broad Jump Isometric Landing
  - Single Leg Lateral Broad Jump to Double Leg Isometric Landing
  - Double Leg Lateral Broad Jump to Single Leg Isometric Landing
  - Single Leg Lateral Broad Jump to Single Leg Isometric Landing
- Rotational Squat Jump Isometric
  - Single Leg Rotational Squat Jump Isometric
  - Single Leg Rotational Hop Isometric

## ACCELERATE/PRODUCE FORCE JUMPS

To progress these types of jumps, add multiple responses—in other words, “doubles” (meaning two consecutive jumps), “triples” (meaning three consecutive jumps), and continuous (more than three consecutive jumps).

- Squat Jump (Vertical Power)
  - Squat Jump Doubles
  - Squat Jump Triples
  - Squat Jump Continuous
- Broad Jump (Horizontal Power)
  - Broad Jump Doubles
  - Broad Jump Triples
  - Broad Jump Continuous
- Lateral Ice Skater (Lateral Broad Jump) Jumps
  - Lateral Ice Skater Doubles
  - Lateral Ice Skater Triples
  - Lateral Ice Skater Continuous
- Rotational Squat Jumps
  - Jump in place while rotating 90 degrees in either direction
  - Rotational Squat Jump Doubles (finish in the same direction you started)
- Single Leg Rotational Squat Jump
  - Jump in place on the same leg while rotating 90 degrees in either direction
  - Single Leg Rotational Squat Jump Doubles (finish in the same direction you started)
- Single Leg Rotational Round
  - Jump for distance to the other leg while rotating 90 degrees in either direction
  - Single Leg Rotational Bound Doubles

## HYBRID JUMPS

Now, combine multiple planes of motion (vertical and horizontal) and double and single leg jumps and landings. You are only limited by your creativity!

- Squat Jump to Broad Jump
- Squat Jump to Lateral Broad Jump
- Squat Jump to Rotational Squat Jump
- Broad Jump to Lateral Broad Jump
- Broad Jump to Squat Jump
- Single Leg Broad Jump to Squat Jump
- Single Leg Squat Jump to Broad Jump
- Lateral Broad Jump to Squat Jump
- Depth Drop to Broad Jump
- Depth Drop to Squat Jump (Depth Drop Jump)
- Depth Drop to Lateral Broad Jump
- Single Leg Depth Drop (short box) to Single Leg Squat Jump
- Single Leg Depth Drop (short box) to Single Leg Broad Jump
- Single Leg Lateral Hop to Forward Sprint

# APPENDIX C: FOREARM STRENGTH PLAYBOOK

## GRIP STRENGTH FOCUS

This group of exercises focuses on grip strength by holding heavy weights (isometrics) in a variety of methods.

### Plate Catches

Stand in an athletic stance with your knees slightly bent and your feet about shoulder-width apart. Hold a 25 lbs., 35 lbs., or 45 lbs. bumper plate in front of your waist with one hand. Drop the weight, and then quickly move your hand down to catch it in the same spot. Alternate sides for 10–15 reps total. Aim for 2–3 sets.

### Double Plate Pinches

Grab two 10 lbs. steel plates, or 15–25 lbs. bumper plates and hold with your fingers on one side and your thumb on the other side pinching the plates together. Find a weight you can hold for 10–15 seconds each hand. Aim for 2–3 sets.

### Hex Dumbbell Holds

Grab a hex dumbbell by its end head and hold for time. Find a weight you can hold for 10–15 seconds each hand. Aim for 2–3 sets.

## FOREARM STRENGTH FOCUS

This group of exercises focuses on the four forearm movements discussed in the section on page 105 of *The High School Athlete: Baseball*.

### Wrist Roller

Hold the wrist roller out in front of you at chest height and roll (under control) up and down. Rolling the weight up and down twice is one rep. Use a weight that allows for 2–3 reps per set.

### Barbell or Dumbbell Wrist Curls

Grab a barbell with a palms up grip (supination) and curl the barbell up and down. The key here is to allow the bar to roll into your fingers when you lower the barbell. This mimics properly holding a baseball bat in your fingers, not in the palms of your hands. This exercise also offers the opportunity to go for weight (6–8 reps for 3 sets) or for volume (15–25 reps for 2 sets).

### Barbell or Dumbbell Seated Wrist Extensions

This is a very important exercise for curl-happy baseball players, as it provides muscle balance to a set of forearm muscles often neglected. Kneeling behind a bench, rest your forearms on the bench with your wrists just off the bench, holding a barbell with a palms down grip (pronation). Raise the barbell up and down while keeping your forearms flat on the bench. Aim for 12–15 reps for 2–3 sets.

## WEIGHTED BAT DRILLS

### Bat Supination

Kneeling behind a bench, rest your forearm on the bench with your wrist just off the bench and hold a bat straight up in a neutral grip. Lower the bat towards the direction your palm rotates **up**. Never go below parallel with the bat; doing so places undue stress on the wrist and elbow. Raise the bat back to the upright position to finish the rep.

### Bat Pronation

Kneeling behind a bench, rest your forearm on the bench with your wrist just off the bench and hold a bat straight up in a neutral grip. Lower the bat towards the direction your palm rotates **down**. Never go below parallel

with the bat; doing so places undue stress on the wrist and elbow. Raise the bat back to the upright position to finish the rep.

### **Bat Ulna Flexion**

Standing, hold a bat with your arm along the body and the weighted end pointed to the **rear** and the handle of the bat facing forward. Keep your arm straight, then raise the weighted end of the bat as high as possible using only the wrist.

### **Bat Radial Flexion**

Standing, hold a bat with your arm along the body and the weighted end pointed to the **front** and the handle of the bat facing backward. Keep your arm straight and then raise the weighted end of the bat as high as possible using only the wrist.

## **FOREARM FOCUS WEIGHT ROOM EXERCISES**

This is a group of traditional weight room exercises that have a focus on forearm strength

### **Dumbbell Hammer Curls**

These are bicep curls with a neutral grip (palms facing your body/thumbs facing up). This exercise works a mix of forearm and biceps muscles. Treat it as a traditional strength exercise and aim for 8–12 reps for 2–4 sets.

### **Barbell Reverse Curls**

Standing, grab a barbell with a palms down grip (pronation) and perform a bicep curl. This exercise works a majority of the forearm muscles in an often neglected part of the body, similar to the seated wrist extension mentioned previously. Treat it as a traditional strength exercise and aim for 8–12 reps for 2–4 sets.

### Fat Bar or Fat Gripz

These are heavy-duty rubber pieces that can wrap around barbells, dumb-bells, pull-up bars and cable attachment to make the chosen equipment a “fat bar” or thick bar. The idea is that the use of a fat bar/thick bar (much like a bigger PVC wrist roller) activates more muscles in your hands and forearms.

### Towel Pull-Ups

Wrap a heavy duty towel around a pull-up bar and grab it with both hands. Another option is to use two towels and grab one in each hand. This requires you to build wicked strong grip strength to complete standard exercises.

## STANDALONE FOREARM STRENGTH PROGRAMS

I wanted to create a few standalone forearm programs for the dedicated high school baseball player who can dedicate 5–10 minutes a day to direct forearm training. These are perfect for the multi-sport athlete who has limited time to train. These programs require the bare minimum equipment that can be found in most basic garage/home gyms, or at a local garage sale.

### Forearm Strength Program #1: Daily Grippers

Put a pair of hand grippers in your car, your baseball bag, your book bag—anywhere you’ll see it frequently. Do 15–20 reps every time you see it.

### Forearm Strength Program #2: Weighted Bat Drills

This program references the weighted bat drills listed on page 331 of *The High School Athlete: Baseball*. Circuit 10 reps of each drill, for 3 sets total. This is best done after a practice or game.

### **Forearm Strength Program #3: Wrist Roller**

Using the wrist roller, 2 reps up and 2 reps down equals 1 set. Do 4–5 sets. Rotate at a PVC pipe's width if possible. If your arms get tired, support your arms over the back of a chair or power rack.

### **Forearm Strength Program #4A**

- 1A. Dumbbell Seated Wrist Extension - 3 sets of 12 reps
- 1B. Barbell Standing (behind your back) Wrist Curl - 3 sets of 25 reps (for volume)
- 1C. Dumbbell Hammer Curl

### **Forearm Strength Program #4B**

- 1A. Dumbbell Seated Wrist Extension - 3 sets of 12 reps
- 1B. Barbell Standing (behind your back) Wrist Curl - 3 sets of 8 reps (for strength)
- 1C. Barbell Reverse Curl

### **Forearm Strength Program #5**

- 1A. Plate Catches - 3 sets of 10 reps each hand
- 1B. Barbell Seated Wrist Extension - 3 sets of 12 reps
- 1C. Weighted Bat Pronation and Supination - 3 sets of 10 reps each direction

# APPENDIX D: SHOULDER AND ARM CARE PLAYBOOK

**T**his section covers the five major areas that affect shoulder care:

1. Shoulder mobility
2. Scapula stability
3. Rotator cuff health
4. Thoracic spine mobility
5. Core stability

## SHOULDER MOBILITY

The shoulder joint must have proper movement (mobility) to allow for proper scapula stability exercises and to create an injury-free environment for the throwing athlete. The focus here is on the traditionally tight chest and anterior shoulder muscles that can restrict overhead motion.

Here are some of my favorites:

### Lunge Rotation Windmills

Get into a lunge position next to a wall with your inside leg up. With your inside arm, reach and rotate your arm and torso towards your back leg while tracing the wall.

### Yoga Push-Ups

Performed by alternating reps of push-ups and Downward Dog.

### **Stability Ball 90/90 Chest Stretch**

Kneel next to a stability ball, place your forearm on the ball with your arm, and shoulder in a 90/90 position. Place the opposite hand on the ground for balance. Gently roll the ball back and forth while leaning away from the ball. You should feel a deep chest stretch.

### **Stability Ball Lat and Shoulder Stretch**

Kneel behind a stability ball and place your fist (thumb up) on the ball with your arm straight in front of you. Place the opposite hand on the ground for balance. Gently roll the ball forward and drop your chest to the floor. You should feel a deep shoulder and lat stretch.

### **Side Lying Shoulder Sweeps**

Get on the floor on your side in lying position with your top knee pulled into your chest with hip and knee at 90 degrees. Grab the knee pulled into your chest with the opposite arm and, with the remaining arm, reach overhead and complete a full shoulder circle while opening your hips, rotating your torso away from the top knee.

## **Scapula Stability (Shoulder Prehab) Exercises**

For this series, you are either face down (prone) or seated with your back against a wall, using your arms to make letters and perform movements to target the scapulae stabilizers. Each exercise is designed to strengthen the scapula area through a complete protraction and retraction each rep. Each movement or letter follows a strict intensity progression using four different prone positions:

1. Incline bench (beginner)
2. Stability ball (beginner/intermediate)
3. Floor (intermediate)
4. Flat Bench (advanced)

### Prone “T” Raise

Lie face down on a bench (prone) with your forehead rested on the bench (towel optional). Place your arms to your sides while holding your weights. Raise both arms to head height with the thumbs pointing up (external rotation) by squeezing your shoulder blades together until your arms make the letter “T.” Hold the shoulder blades together for a count of 2 seconds and return the weights to the floor. Repeat for the programmed reps. If available, you can substitute a set of gymnastic rings or any suspension trainer.

### Prone “Y” Raise

Assume the same step-up position as the “T” raise, but this time raise your arms to make the letter “Y” with thumbs pointing up (external rotation). Hold the shoulder blades together for a count of 2 seconds and return the weights to the floor. Repeat for the programmed reps.

If available, you can substitute a set of gymnastic rings or any suspension trainer.

### Prone “C” (Cobra) Raise

Assume the same step-up position as the “T” raise, but this time raise your arms towards your glutes/hips and make an upside-down “V” with thumbs pointing up (external rotation). Hold the shoulder blades together for a count of 2 seconds and return the weights to the floor. Repeat for the programmed reps.

### Prone Shoulder Press

Lie face down on a bench (prone) with your forehead rested on the bench (towel optional). Pull both arms up at a 90-degree angle until your arms make the letter “L.” Maintain this position while you press the dumbbells overhead. Hold the shoulder blades together with your arms extended for a count of 2 seconds and return to the starting position. Repeat for the programmed reps.

### Prone Prisoners

This exercise is a hybrid of the Shoulder Press and the “C” Raise. Start your hands behind your head as if arrested. In one smooth motion, raise your hands overhead (Shoulder Press) and down your body while rotating your hands (“C”) until they touch behind your lower back as if you are handcuffed. Reverse that motion back to hands behind your head. That is one rep.

*For the following series, you are seated on the floor or standing against a wall with your lower back flat against the wall. These are very humbling exercises when done correctly.*

### Wall Shoulder Raises

With arms at your side, press your lower back into the wall to engage your core muscles. Raise your arms (thumbs up) and point at the wall, going as far as you can while keeping your core engaged.

### Wall Slides

Press the top of your forearms and wrist into the wall, making 90-degree angles at the elbow and shoulder. The position looks like football goal posts or the bottom of a shoulder press. Keep your lower back pressed into the wall to engage your core muscles. Slide your arms up the wall as far as you can while keeping your core engaged and your forearms and wrists pressed into the wall.

### Wall Partner Band Shoulder Raises

With your lower back pressed into the wall to engage your core muscles, keep your arms at your side while holding the ends of a strength band held by your partner. Raise your arms (resisted by the strength bands) thumbs up and point up the wall, as far as you can keep your core engaged.

### Wall Partner Band Slides

Press the top of your forearms and wrist into the wall, making 90-degree angles at the elbow and shoulder while holding the ends of a strength band held by your partner. The position looks like football goal posts or

the bottom of a shoulder press. Keep your lower back pressed into the wall to engage your core muscles. Slide your arms up the wall, resisted by the strength bands, as far as you can while keeping your core engaged and your forearms and wrists pressed into the wall.

### **Serratus Wall Slides**

Face the wall for this variation. Standing, lean against the wall and place your forearms flat against the wall. Drive your forearms up and slightly out, allowing your shoulder blades to protract. Reverse the movement and retract your shoulder blades to finish the rep. Add a light mini-band around your wrists to add intensity.

*For the following series, you can use either a strength band or a cable machine. If you have access, a Keiser Performance Trainer is best. It provides a consistent resistance throughout the range of motion and allows for a progression to dynamic exercises which bands and cables cannot provide.*

### **Band Pull-Aparts: Palms UP**

Grab a strength band, palms up, at chest height. Pull the band across your chest.

### **Band Pull-Aparts: Palms DOWN**

Grab a strength band, palms down, at chest height. Pull the band across your chest.

### **Band Pull-Aparts: X Reps**

Grab a strength band, palms down, at chest height. Pull one hand up, slightly above your head. Pull the other hand down, around the hips. Switch directions each rep. One rep in each direction makes the letter “X.”

### **Band Face Pull-Apart**

Grab a strength band anchored to a power rack with both hands to make it look like an isosceles triangle (two sides of equal length). Keeping your shoulder blades in your back pocket, pull the band to your nose (face pull), while at the same time pulling your hand apart (pull-apart).

### **Band or Cable Overhead Squat Pattern**

Grab the ends of a strength band anchored to the floor by a power rack, or the ends of a cable triceps rope set up at your feet. Squat to parallel and pull your arms overhead while your thumbs point up and behind you.

### **Cable Face Pull**

Grab the ends of a cable triceps rope anchored at head height. Pull the rope towards your face while separating your hands.

*This series includes exercises that directly train the healthy movement, pro-traction and retraction of the scapula.*

### **Elbow Push-Ups**

From a plank position, protract the shoulder blades (push your chest up), and then retract them (squeeze your shoulder blades together).

### **Elbow Push-Ups (Feet Elevated)**

Protract and retract your shoulder blades with your feet elevated on a bench or a box.

### **Yoga Push-Ups**

Performed by alternating reps of push-ups and Downward Dog.

### **TRX Serratus Slides (Kneeling or Standing)**

Assume a 45–60-degree plank position with your forearm/wrists in the loops of the TRX. Press your arms forward, allowing your shoulder blades to protract forward. Reverse the movement and retract your shoulder blades to finish the rep.

### **Rotator Cuff**

The rotator cuff consists of four small muscles that allow us to raise the arm overhead effectively. These exercises focus on external shoulder rotation.

### **Dumbbell Side Lying External Rotations**

Lie on your side with one hand supporting your head and the other arm holding a 3 or 5 lbs. dumbbell with the elbow at 90 degrees, resting on your side. Raise (externally rotate) the arm until you feel a gentle stretch in the chest.

### **Cable or Band Side External Rotation**

Standing perpendicular to the machine or anchor point, grab a cable handle or strength band with the elbow at your side held at a 90 degree angle. Pull your hand away from the body (external rotation) until you feel a gentle stretch in the front of your shoulder.

### **Cable or Band 90/90 External Rotation**

Stand facing the machine or anchor point and grab a cable handle or strength band with the elbow AND shoulder at a 90 degree angle. Pull your hand away from the body (external rotation) while keeping your elbow fixed, until you feel a gentle stretch in the front of your shoulder.

If available, you can substitute a set of gymnastic rings or any suspension trainer.

### **Prone External Rotation Raise**

Lie face down on a bench (prone) with your forehead resting on the bench (towel optional). Pull both arms up at 90 degree angles until your arms make the letter “L.” Maintain this position while you externally rotate your shoulders and raise up the weights. Hold the shoulder blades together for a count of 2 seconds and return to the starting position. Repeat for the programmed reps.

### **Prone Row External Rotation Press**

Lie face down on a bench (prone) with your forehead rested on the bench (towel optional). Pull both arms up at 90 degree angles until your arms make the letter “L.” Maintain this position while you externally rotate your shoulders and raise up the weights. Finally, press the dumbbells overhead (press). Reverse all movements until the dumbbells are hanging by your sides. All of that equals one rep!

If available, you can substitute a set of gymnastic rings or any suspension trainer.

### **Cable or Band Face Pull to 90/90 External Rotation**

Grab a strength band anchored to a power rack at head height so that it looks like an isosceles triangle (two sides of equal length). Keeping your shoulder blades in your back pocket, pull your hands first to your nose (face pull) and then pull the band back over your head (external rotation), making your arms look like football goal posts. Hold for a count of 2 seconds and return to the starting position. Repeat for the programmed reps.

If available, you can substitute a set of gymnastic rings or any suspension trainer.

### **Cable or Band Face Pull to 90/90 External Rotation to Overhead Press**

Add a shoulder press to the above face pull and external rotation. If available, you can substitute a set of gymnastic rings or any suspension trainer.

## **Thoracic Spine Mobility**

The thoracic spine receives very little attention when assessing shoulder pain from a strength coach's perspective. Too many strength coaches look directly at the area of pain, and must start to think above and below those areas. Just as knee pain can be a product of a lack of ankle and hip mobility, the shoulder can suffer with a lack of thoracic mobility.

Training mobility throughout the thoracic spine should be a high priority in any throwing athlete. Being able to rotate and fully extend eliminates any potential lower back and shoulder compensations.

The following exercises are covered extensively in the Mobility vs. Stability section on page 110 of *The High School Athlete: Baseball* and the Uncommon Database found in Appendix E.

- PVC Bench Thoracic Extension
- Medicine Ball or Foam Roll Thoracic Extension
- Kneeling Thoracic Rotations

- Floor Medicine Ball Thoracic Rotations
- Lunge Yoga Rotations

### Core Stability

Your entire core area (abs, hips, lower back, and glutes) have a hand in keeping your upper body and lower body functioning correctly, as it connects the two structures. Start with the core stability section of the Progression/Advancement of Core Lifts table on page 65 of *The High School Athlete: Baseball*. Also, review the core stability section in Tier 2 Core Lifts found on page 94 of *The High School Athlete: Baseball*.

## STANDALONE HEALTHY SHOULDER PROGRAMS

I wanted to create a few standalone shoulder programs for the dedicated high school baseball player who will dedicate 5–10 minutes a day to direct arm care. These are perfect for the multi-sport athlete who has limited time to train. They are also great for pitchers after games or any bullpen session. These programs include the bare minimum equipment that can be found in most basic garage/home gyms, or at a local garage sale.

### Healthy Shoulders Program #1

Lunge Rotation Windmills - 3 sets of 8 rotations each arm  
Stability Ball Dumbbell Prone “T” Raise - 3 sets of 8 super slow reps  
Bench Thoracic Extension - 3 sets of 5 deep breaths  
Wall Slides - 3 sets of 12 super slow reps

### Healthy Shoulders Program #2

Stability Ball 90/90 Chest Stretch - 3 sets of 8 reps each side  
Incline Bench Dumbbell Prone “Y” Raise - 3 sets of 8 super slow reps  
Medicine Ball or Foam Roll Thoracic Extension - 3 sets of 20-30 seconds  
Cable Face Pull - 3 sets of 15 reps

### **Healthy Shoulders Program #3**

Side Lying Shoulder Sweeps - 3 sets of 8 rotations each arm

Flat Bench Dumbbell Prone Shoulder Press - 3 sets of 8 super slow reps

Kneeling Thoracic Rotations - 3 sets of 8 reps each side

Band Pull-Aparts: Palms Down - 3 sets of 25 reps

### **Healthy Shoulders Program #4**

Stability Ball Lat and Shoulder Stretch - 3 sets of 8 reps each side

Stability Ball Prone Prisoners - 3 sets of 8 super slow reps

Only add 2.5–3 lbs. after you complete the 8 reps without weight

Floor Medicine Ball Thoracic Rotations - 3 sets of 8 reps per side

Cable or Band Side External Rotation - 3 sets of 12 super slow reps each side

### **Healthy Shoulders Program #5**

Yoga Push-Ups - 3 sets of 12 reps

Band or Cable Overhead Squat Pattern - 3 sets of 8 super slow reps

Lunge Yoga Rotations - 3 sets of 10 reps each side

Stability Ball Dumbbell Prone Row External Rotation Press - 3 sets of 5 super slow reps

# APPENDIX E: UNCOMMON EXERCISE DATABASE

I receive a handful of college-level workouts each year, intended for use by my graduating seniors. And each year, I find myself needing to reach out to the head strength and conditioning coaches for help in understanding exactly what their mobility and warm-up exercises are.

It's a problem in the industry, at present. We all know the squat, deadlift, lunge, bench, shoulder press, etc.; we know what they are, and how to perform them. A coach in New York will have you squat the same way as a coach in Los Angeles. However, we seem to lack for consistency when it comes to mobility and warm-up exercises.

With this book, I promised myself not to leave any dedicated athlete and/or coach out to dry, going online to try to decipher the uncommon exercises featured in the High School Athlete program.

Here is a detailed list with quick descriptions of the exercises I believe to be uncommon.

## MOBILITY MENU: THE “BIG 5”

### Band Overhead Squat Pattern

Anchor a strength band at the bottom of the Squat Rack. Grab the band with an overhand and shoulder-width grip. Squat to parallel and raise the band overhead with your arms in a “V.”

### Band Pull-Aparts

Stand tall with your shoulder blades pulled down and back (as though you were trying to put your shoulder blades into your back pocket). Grab a light strength band with both hands with a grip just outside the width of your shoulders, and then pull your hands apart.

## **Bench Wrist Stretch**

Rotate your wrist so your fingers face you. Place your palms flat on a bench to stretch the wrist.

## **Dumbbell “T” Balance**

Combines the Single RDL with a Superman Raise. Do a single leg RDL while raising your arms overhead at the same time.

## **Dumbbell “T” Raise (Rear Delt Raise)**

Lie face down on a bench (prone) with your forehead rested on the bench. While holding a 3–5 lbs. weight in each hand, place your arms to your side, then raise both arms to head height by squeezing your shoulder blades together until your arms make the letter “T.”

## **Floor Medicine Ball Thoracic Rotations**

While side lying, flex the top hip/knee to 90 degrees and pin that knee to the floor with a medicine ball or foam roller and your opposite hand. Grab the armpit area with the same hand or the knee that is flexed. Rotate away from the top knee by pulling the elbow away and towards the floor.

## **Foam Roll Latissimus Dorsi (Lat) Muscles**

Lie on your side on the floor and place a foam roller on your lat muscle near your armpit. Bench your top leg and place that foot on the ground to help control any rolling back and forth.

## **ISO Front Squat**

Hold the bottom of a barbell front squat and focus on driving your elbows up.

## **Kneeling Thoracic Rotations**

Rest your glutes on your heels while kneeling. Place your fist on your temple and rotate while resting your opposite hand on the floor for balance.

### **Lunge Yoga Rotations**

Get into a lunge position. Place the opposite hand from the front knee on the floor. Place the fist of the same hand as the front knee on your temple. Hold the lunge position while you rotate your elbow up to the ceiling and down to the floor.

### **Medicine Ball Thoracic Extension**

Sitting on the floor, knees bent, feet flat on the ground, place a medicine ball behind you on your mid spine (thoracic spine). Place your hands behind your back and arch your chest backwards.

### **PVC Bench Thoracic Extension**

Kneel perpendicular to a bench with a PVC pipe held like a traditional bicep curl. Place your elbows on the bench and walk your knees back to allow your head to fall below the bench. Deeply exhale before dropping the chest to the floor.

### **PVC or Barbell Overhead Squat**

While holding the bar directly overhead, with your elbows directly in line with your ears and your shoulder blades pulled down and back, start the movement by pushing your hips back with a neutral lower back, allowing your knees to bend naturally.

### **Single Leg Glute Bridge**

Lie on the floor on your back. Bend your knees 90 degrees and put your feet flat on the floor. Begin the movement by pulling one knee into your chest (taking your foot off the floor), and then pushing your opposite heel into the floor and driving your hips up until you reach full hip extension.

### **Walking Lunge with Rotation**

Standing, step forward with your right foot and decelerate your body into a stationary lunge position with your right knee off the ground and your left knee up. Exhale, rotating your torso towards your front leg. Without pausing, drive your right heel into the floor to push yourself up and take a

step forward with your left foot. Decelerate your body with your left foot as you move into another stationary lunge position.

### **Wall Half-Kneeling 3-Way Ankle Mobility**

Get into a Lunge position facing the wall or power rack with your back knee resting on the floor. Position the front foot a “thumbs-up” distance from the wall or power rack. Drive the front knee towards the wall left (over the big toe), center, and right (over the pinky toe) while keeping your heel flat.

### **Yoga Push-Up**

Performed by alternating reps of push-ups and Downward Dog.