

Introduction to Training Cont.

Proprioceptive Neuromuscular Facilitation (PNF) – Stimulates the neuromuscular system to produce a desired movement with optimal health of muscle, bone, and connective tissues. PNF makes movements more efficient, safely increases range of motion, controls posture, body awareness, and improves muscle function. National Pitching has specific training blocks for PNF.

Workload Balance – The action of throwing and releasing an implement creates force that results in stress. National Pitching uses force calculations in our training program to insure we balance throwing stress forces with beneficial conditioning forces. You must balance the workloads, to prevent being at a deficit and increasing your risk for injury.

Cross Specificity – When deciding on what type of conditioning is best for an athlete, why would you choose anything not cross specific to your desired action. National Pitching training protocols are cross specific to correct biomechanical variables and the movements of an athlete in competition.



How to Use Training Blocks

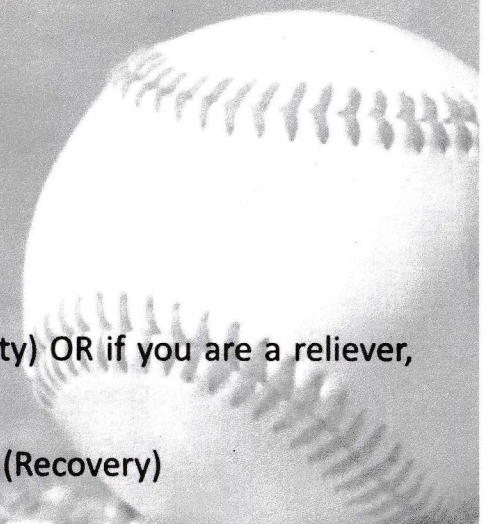
The National Pitching training program is a complete package to arm care and performance. These methods have been used, tested, and adapted over 30 years to create the safest and best methods for a rotational athlete to stay healthy and perform at their best! Athletes should use all the training blocks as prescribed. Picking and choosing only favorable training blocks, may not be addressing your weakest link. **You are only as strong as your weakest link! You are only as efficient as your worst movement!** Most of our training blocks average 30 minutes, so they are easy to incorporate into existing daily routines.

Days of Work

- Youth: 3-4 days per week; Young Adults: 4-6 days per week; Adults: 6 days per week

In Season (pitching competitively once or more per week)

- **Pre-game or pre-practice: Blocks 1-3** (Elevate Core temp, Arm Care, and Flexibility) OR if you are a reliever, prepare as you would pitch in every game.
- **Immediately after Pitching in Competition: Block 2**, plus 20 min of aerobic activity (Recovery)
- **Days between pitching in competition: Blocks 4-8** (Joint care, Arm Strength, Recovery, Biomechanical patterning)



How to Use Training Blocks Cont.

Out of Season (throwing or pitching in only non-competitive situations)

- **Pre-Throwing: Blocks 1-4** (Elevate Core Temp, Arm Care, Flexibility, and Patterning)
- **Days Between Throwing: Blocks 5-9** (Joint care, Arm Strength, Recovery, Biomechanical patterning, Velocity programs)

Blocks 1-4 are specifically designed around throwing and competing, so they should always be done in order on specified days. **Blocks 5-9** can be done in any order and sequencing on different days/weeks. Alternate the use of Blocks 5-9, week to week, to prevent mental stagnation.

National Pitching encourages a year-round arm care and throwing program, but **WE DO NOT** encourage year-round competitive pitching. We suggest 60-90 days of no competitive pitching per year, but always keep your arm active and working. Our throwing protocols produce minimum stress levels with maximum benefit, more energy is going in than is coming out. No other throwing program can make the same claims!

Training Blocks

- **Block 1 – Core Temperature Elevation**
 - ✓ Full Body Warmup
- **Block 2 – Arm Care and Recovery**
 - ✓ Pre and post throwing, preparation and recovery
- **Block 3 – Upper Body Flexibility**
 - ✓ Pre-throwing routine, flexibility with stability
- **Block 4 – Nerve Pathway Patterning**
 - ✓ Biomechanical sequence patterning with joint care
- **Block 5 – PNF (Proprioceptive Neuromuscular Facilitation)**
 - ✓ Body movement awareness, arm strength, joint care
- **Block 6 – Light Dumbbells**
 - ✓ Arm strength, joint integrity, arm care
- **Block 7 – Elastic Bands**
 - ✓ Arm strength, joint integrity, arm care
- **Block 8 – Plyo Balls**
 - ✓ Arm strength, joint integrity, arm care
- **Block 9 – Velocity Programs**
 - ✓ Velocity Balls
 - ✓ Velocity Bats
- **Miscellaneous Drills**
 - ✓ Towel Drill to Target
 - ✓ Vector Director with Band Assist

1. Core Temperature Elevation


1. Core Temperature Elevation

PURPOSE

1. Full Body Warmup
2. Posture Awareness
3. Reciprocal Patterning
4. Blood Flow / Circulation
5. Pre-throw Routine

IMPLEMENTS

Optional: glove / ball / towel



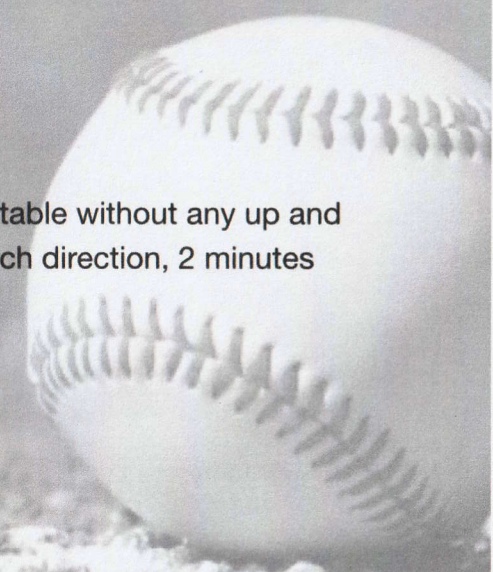
1. Posture Jog

With knees bent, jog forward and backward without bouncing. Head should remain stable without any up and down movement. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.



2. Posture Skip

With knees bent, skip forward and backward without bouncing. Head should remain stable without any up and down movement. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.



3. Bounding

Bound as high as possible forward and backward, alternating right and left leg. Lift knee and opposite arm up as high as possible on each bound. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.



4. Quick Carioca

Arms in Flex-T position, carioca feet quickly with large separation of hips and shoulders and head still, left and right. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.



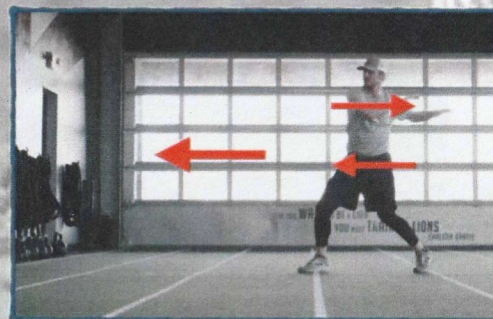
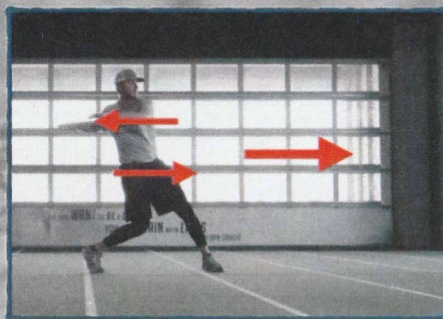
5. Tap-&-Go

Shuffle sideways in posture, eyes in direction of shuffle and head still, clapping hands together after front foot lands, left and right. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.

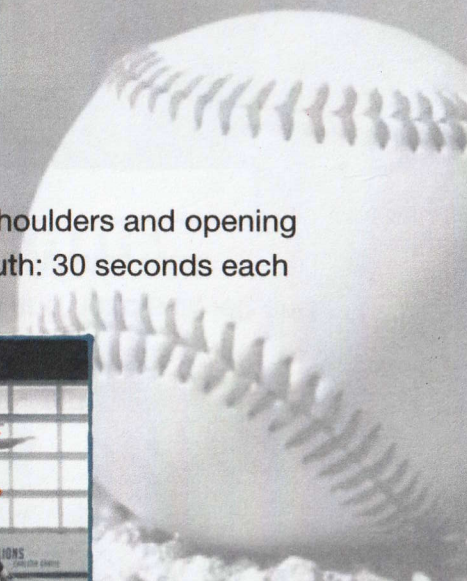


6. Step-&-Torque

With arms in horizontal Flex-T position, elbows at 90°, shuffle and step forward closing shoulders and opening hips simultaneously with each step. Keep head still. Left-handed and right-handed. Youth: 30 seconds each direction, 1 minute total. Adult: 1 minute each direction, 2 minutes total.



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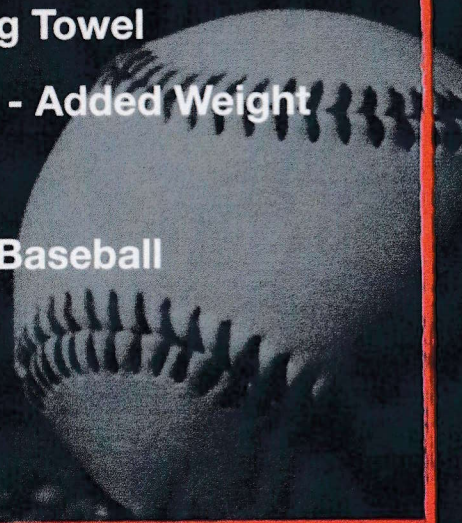


2. Arm Care and Recovery

PURPOSE

1. Recovery
2. Joint Care
3. Blood Flow/Circulation
4. VO2 max development
5. Lactic Acid Management
6. Pre or Post Throw Routine

IMPLEMENTS

- National Pitching Towel
 - Advanced Level - Added Weight
 - 5 oz Ball
 - Weighted Baseball
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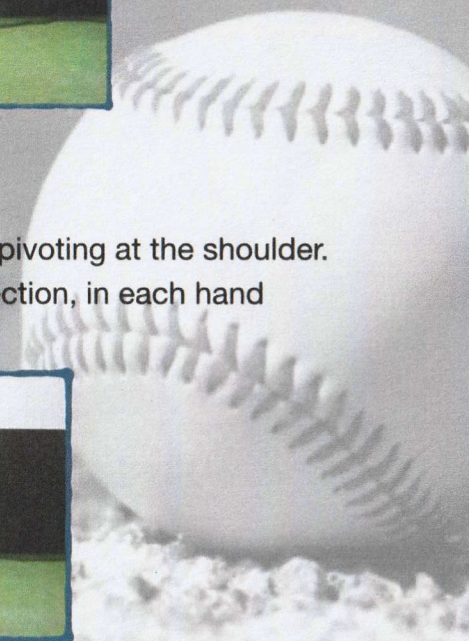
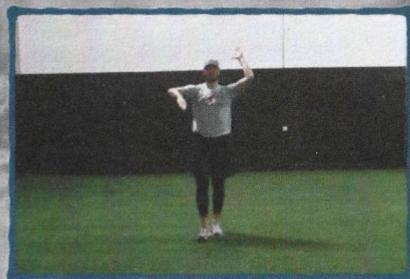
1. Flex T Walks - Stationary

Place elbows shoulder height, slightly in front of chest, at 90°(Flex-T). Keeping arms stationary with palms facing forward, walk forward and backward. 30 seconds in each direction., 1 minute total.



2. Flex T Walks - Moving

Arms in same position as previous. Walk and alternate moving arms forward and back, pivoting at the shoulder. Three hand positions: palms forward, palms in, and palms out. 30 seconds in each direction, in each hand position. 3 minutes total.



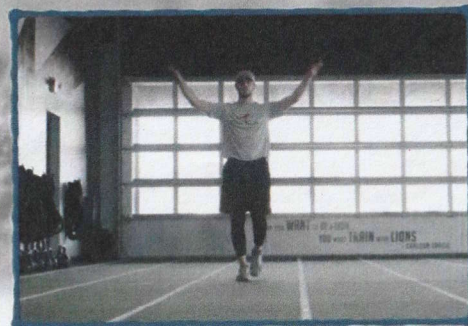
3. Flex T Cariocas

Arms in Flex-T position, carioca feet with large separation of hips and shoulders and head still, left and right. Time: 2 minutes (adult), 1 minute (youth) in each direction.



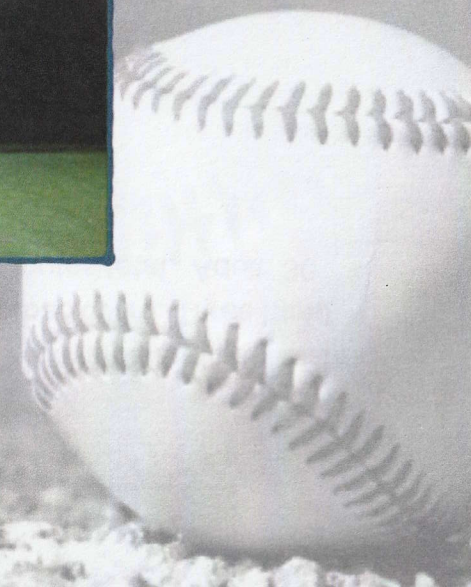
4. Walking Arm Circles

Extend arms fully and position hands slightly in front of chest, pinch shoulder blades. Walk forwards and backwards, circling arms in a medium size circle. Change hand positions after each set of forward and backward. Three hand positions: thumb down, palm down, thumb up. Youth: 15 seconds in each direction, 1½ minutes total. Adult: 30 seconds in each direction, 3:00 minutes total.



5. Speed Towels

In a pitcher's landing position, step and whip towel as fast as possible, repetitively. Close shoulders between each whip of towel, eyes up and level, head still, back toe down, glove in front. Goal is 24-26 reps in 30 seconds. Youth: 2 sets of 30 seconds each, with recovery in between. Adult: 4 sets of 30 seconds each, with recovery in between.



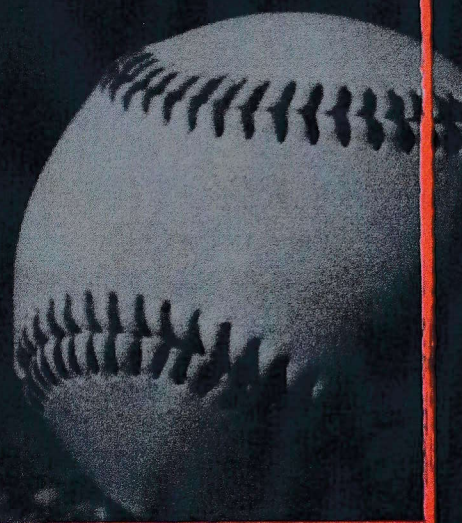
3. Upper Body Flexibility

PURPOSE

1. Joint Care
2. Body Work
3. Pre-throw Routine

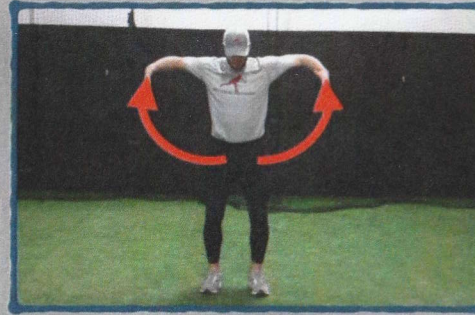
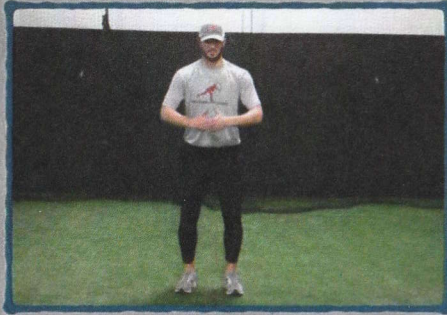
IMPLEMENTS

None



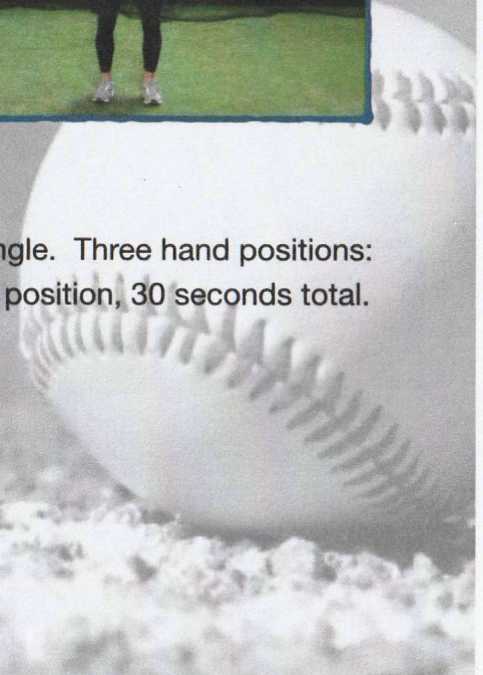
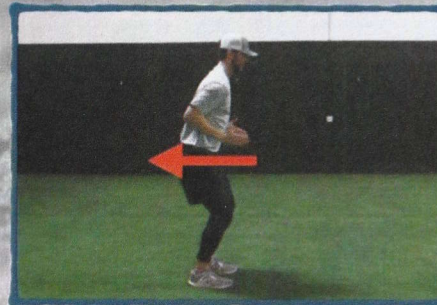
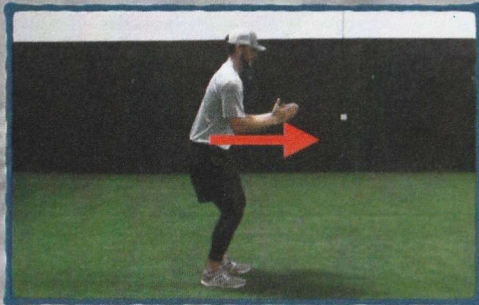
1. In and Outs

Arms in front of body, with elbows at 90°. Move arms in and out, hands over and under each other, without changing elbow angle. Three hand positions: Palms down, palms in (thumb up), palms up. 10 seconds in each hand position, 30 seconds total.



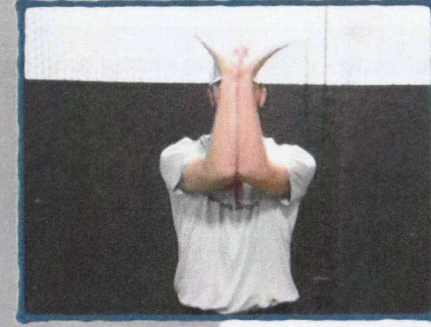
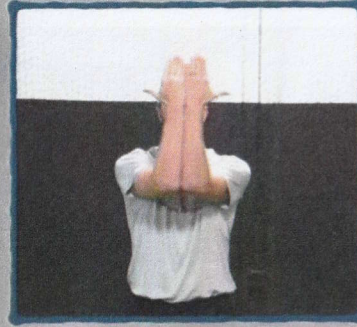
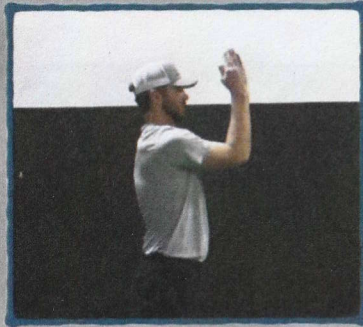
2. Arm Saws

Elbows at sides, bent 90°. Move arms rapidly back and forth without changing elbow angle. Three hand positions: Palms down, palms in (thumb up), palms out (thumbs down). 10 seconds in each hand position, 30 seconds total.



3. Hand & Finger Press (Vertical)

a. Arms in front of your body, forearms in vertical position, elbows 90. Press hands and elbows together. Three hand positions: palms together, palms facing you (little fingers together), palms out (thumbs together). 10 seconds in each hand position, 30 seconds total.



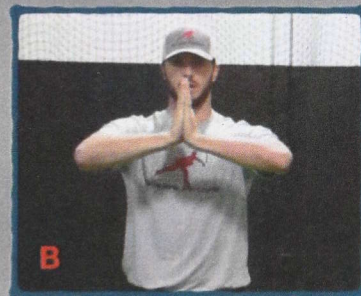
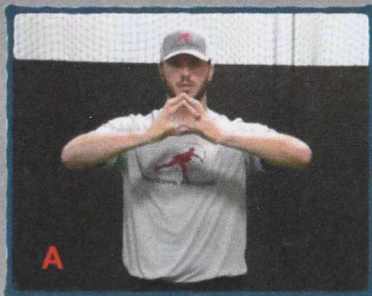
b. Same arm position as previous, palms together. Starting with the smallest finger, moving to the thumb, press fingertips together. Keep pressing previous finger as you move to the next. All fingertips should be pressing when you reach the thumb. 5 seconds with each finger, 25 seconds total.



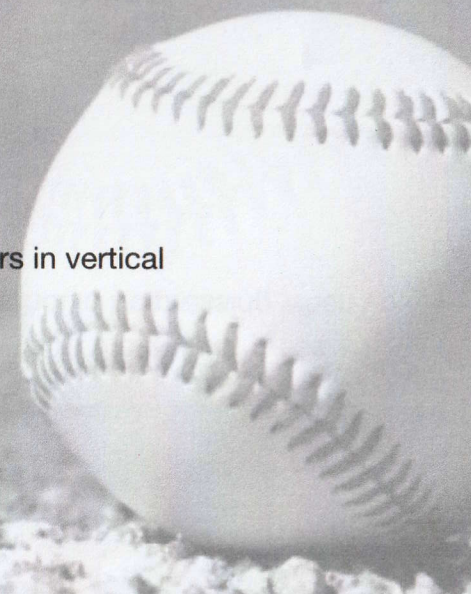
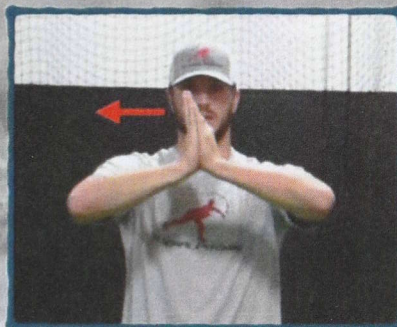
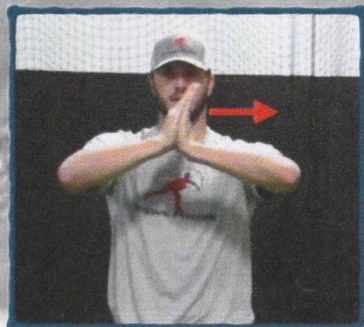
4. Hand & Finger Press (Horizontal)

a. Arms in front of your body, forearms in horizontal position. While retracting shoulder blades/scapulas, press all fingertips together and hold 10 seconds. Continue pressing, and rock fingertips back and forth 10 seconds. 20 seconds total.

b. Same arm, shoulder, and scapula position as previous. Press palms together and hold for 10 seconds. Continue pressing, rock hands back and forth for 10 seconds. 20 seconds total.

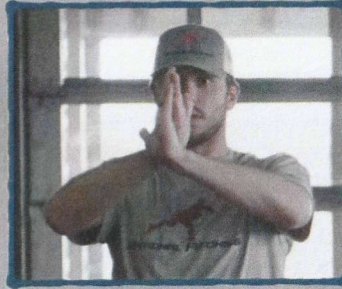
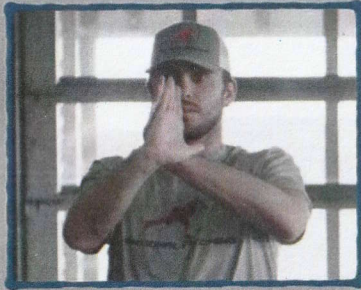


c. Same arm, shoulder, and scapula position as previous. Press palms together with fingers in vertical position. Press fingertips back and forth toward elbows. 10 seconds total.



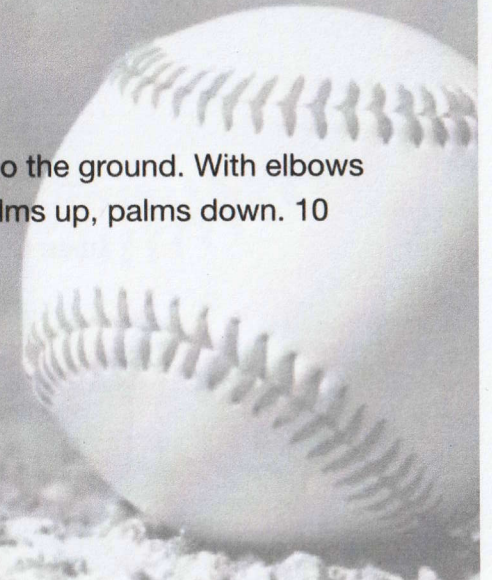
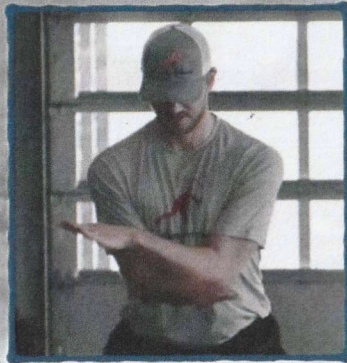
5. Backhand Cross Pull

Arms in front of body. Retract shoulder blades/scapulas, press backs of hands together. Switch hands and repeat. 10 seconds in each position, 20 seconds total.



6. Scissors

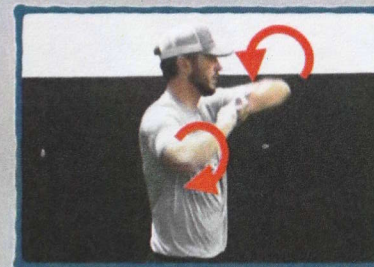
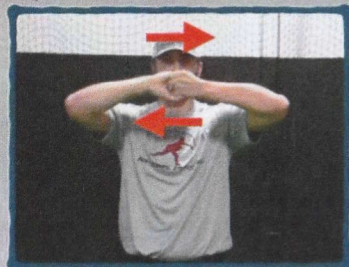
Arms in front of body, elbows placed against and in front of your torso, forearms parallel to the ground. With elbows stationary, cross forearms rapidly back and forth, over and under. Two hand positions: palms up, palms down. 10 seconds in each hand position, 20 seconds total.



7. Push / Pulls

Arms in front of body, elbows at shoulder height, retract shoulder blades/scapulas, interlock hands.

- Pull – While pulling on interlocked hands: move hands side to side, circle hands forward and backward, swim elbows forward and backward. 5 seconds in each movement, 25 seconds total.
- Push – While pushing on interlocked hands: move hands side to side, circle hands forward and backward, swim elbows forward and backward. 5 seconds in each movement, 25 seconds total.



8. Why Me

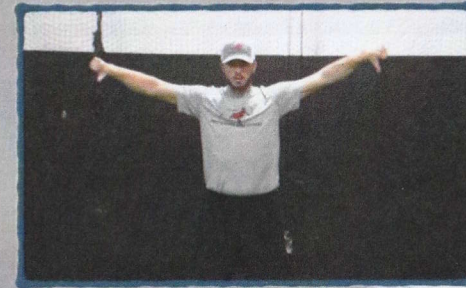
Arms and hands in front of body, pull elbows up to shoulder height, throw hands back and away from head. Keep elbows in front of shoulders throughout movement. 10 reps total.



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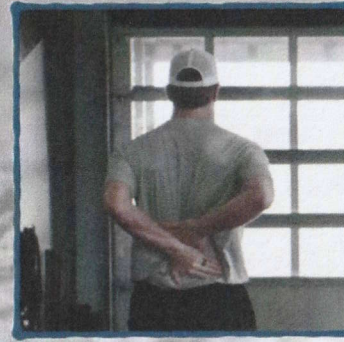
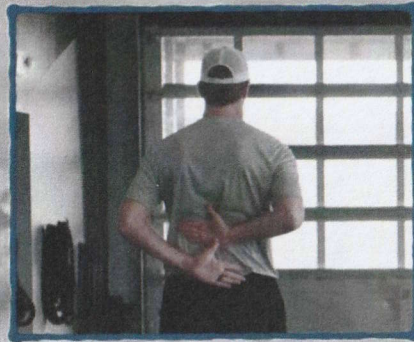
9. Swims

Arms in front of body, hands positioned chest height. Push knuckles together, with thumbs up. Rotate thumbs toward you and down, swim arms out wide, 10 reps total.

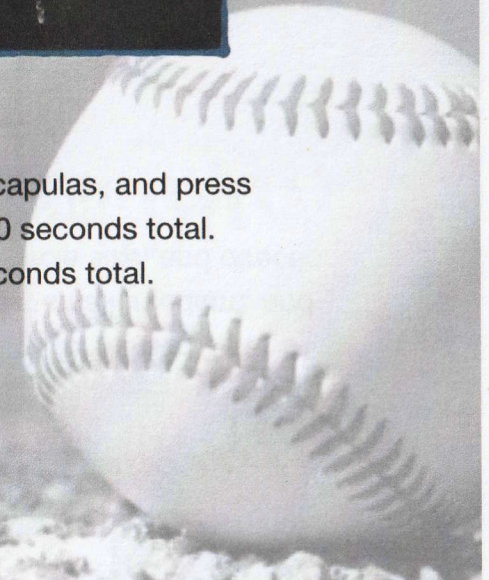


10. Lower Back Presses

- Place palms on lower back, one hand above the other, retract shoulder blades/scapulas, and press into lower back. Switch hand positions and repeat. 5 seconds each position, 10 seconds total.
- Place backs of hands on lower back and repeat. 5 seconds each position, 10 seconds total.

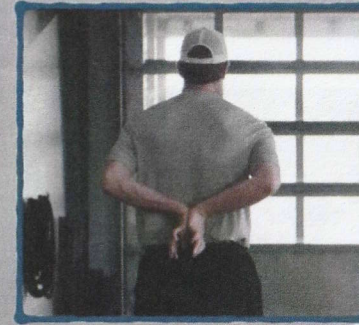
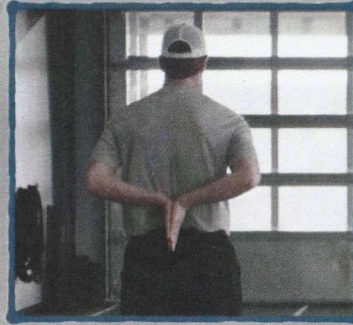
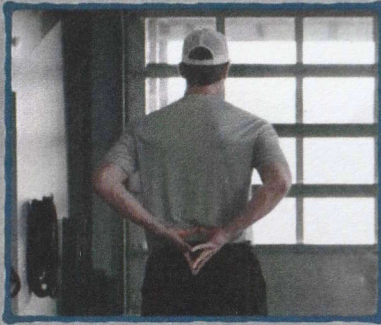


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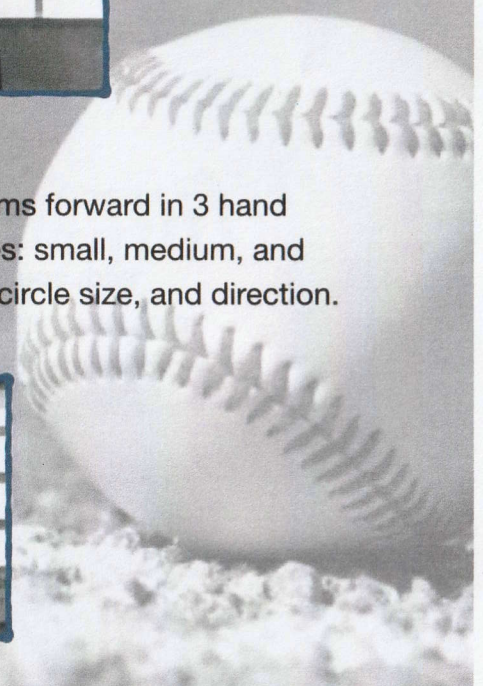
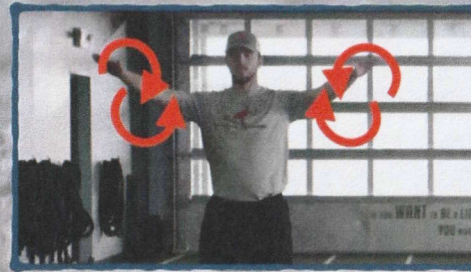
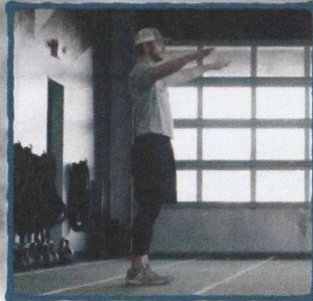
11. Behind Back Press

Place hands behind lower back. Retract shoulder blades/scapulas. Press together: fingertips, palms, and heels of hand. 5 seconds in each hand position, 15 seconds total.



12. Arm Circles

Extend arms fully with hands slightly in front of chest. Pinch shoulders blades and circle arms forward in 3 hand positions: thumb down, palm down, thumb up. In each hand position complete 3 size circles: small, medium, and large. Repeat entire process in backward motion. Youth: 5 seconds in each hand position, circle size, and direction. 1:30 total. Adult: 10 seconds in each hand position, circle size, and direction. 3:00 total.

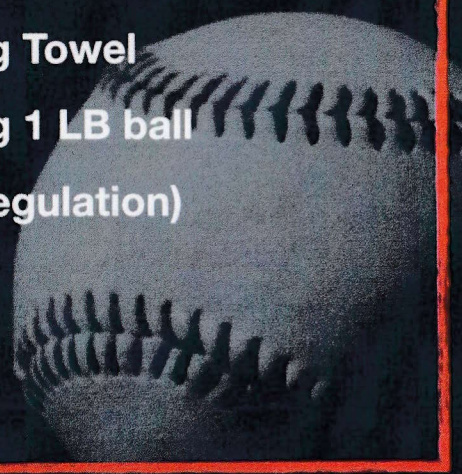


4. Nerve Pathway Patterning

PURPOSE

1. Nerve Patterning
2. Joint Care
3. Arm Strength
4. Arm Speed

IMPLEMENTS

- National Pitching Towel
 - National Pitching 1 LB ball
 - 5 oz. Baseball (regulation)
 - Glove
- 

Each of these drills incorporates multiple weights for working strength (heavy) and speed (light). For each drill the athlete should complete reps with each weight, in the following order: 1 lb. ball, 5 oz ball/towel together, 5 oz ball, and towel.

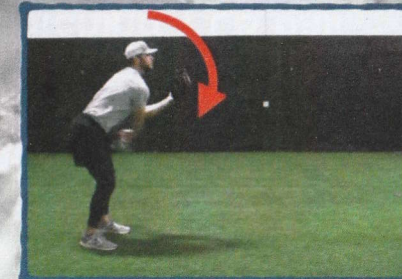
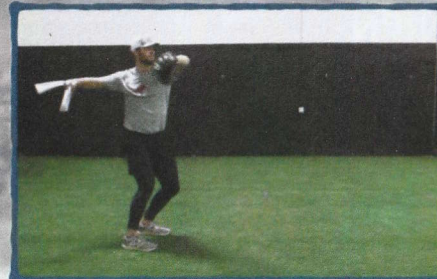
1. Knee Drill

Arms in horizontal Flex-T position, palms facing out, thumbs down. Turn shoulders and throw without releasing implement. Head and glove position should be stabilized and in line with center mass. Three throwing hand positions. At release point: palm forward (fastball), palm in (curveball), palm out (change up). Youth: 3 reps in each hand position, with each weight, 36 reps total. Adult: 5 reps in each hand position, with each weight, 60 reps total.



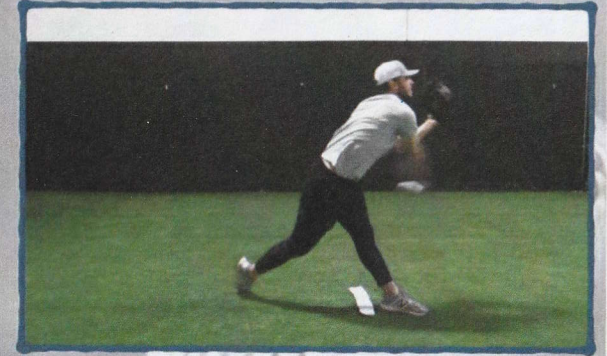
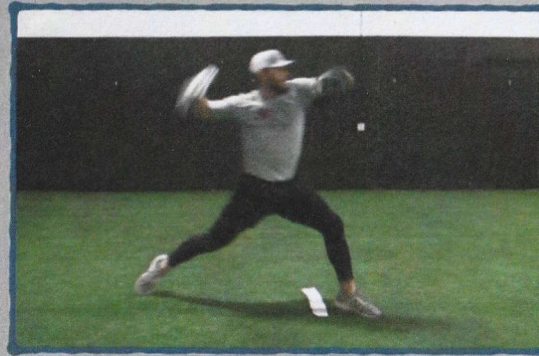
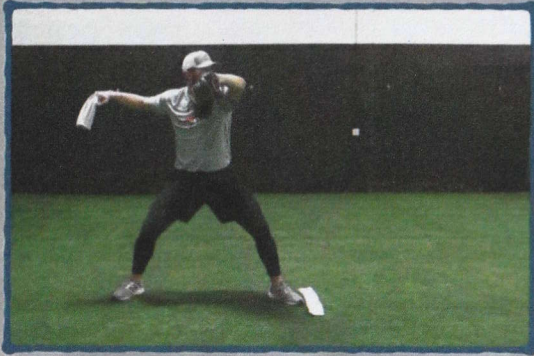
2. Standing Torque Toss

Stand with knees bent in athletic posture. Arms in horizontal Flex-T position, palms facing out, thumbs down. Turn shoulders and throw without releasing implement. Head and glove position should be stabilized and in line with center mass. Three throwing hand positions. At release point: palm forward (fastball), palm in (curveball), palm out (change up). Youth: 3 reps in each hand position, with each weight, 36 reps total. Adult: 5 reps in each hand position, with each weight, 60 reps total.



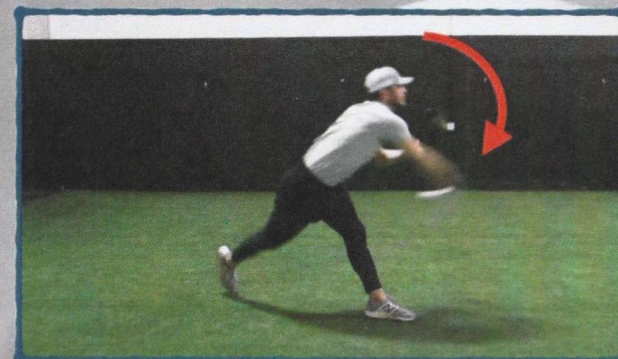
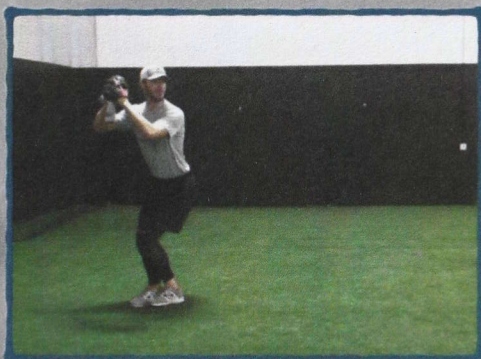
3. Rocker Leapers

Start in wide stance. Arms in horizontal Flex-T position, palms facing out, thumbs down. Preset shoulders closed and bend knees deeply. Maintain head over hips posture and rock weight forward and back. Leap forward the length of one of the athlete's feet. Keep shoulders closed until foot strike and throw without releasing implement. Head and glove position should be stabilized and in line with center mass. Three throwing hand positions. At release point: palm forward (fastball), palm in (curveball), palm out (change up). Youth: 3 reps in each hand position, with each weight, 36 reps total. Adult: 5 reps in each hand position, with each weight, 60 reps total.



4. Crossover

Start in pitcher set position, cross front foot over back foot and place both feet flat on the ground. Preset shoulders closed, bend knees equally, position forward hip slightly towards target. Lift the knee toward the glove and the direction the chest is pointed, moving forward simultaneously. Keep shoulders closed until foot strike and throw without releasing implement. Head and glove position should be stabilized and in line with center mass. Three throwing hand positions. At release point: palm forward (fastball), palm in (curveball), palm out (change up). Youth: 3 reps in each hand position, with each weight, 36 reps total. Adult: 5 reps in each hand position, with each weight, 60 reps total.



5. Step Behinds

Start in pitcher set position. Pre-set shoulders closed. With maximum speed of feet and legs, take a small step forward, step behind forward foot and leap off the back foot. Keep shoulders closed until foot strike and throw without releasing implement. Head and glove position should be stabilized and in line with center mass. Three throwing hand positions. At release point: palm forward (fastball), palm in (curveball), palm out (change up). Youth: 3 reps in each hand position, with each weight, 36 reps total. Adult: 5 reps in each hand position, with each weight, 60 reps total.

