

IMG PHYSICAL THERAPY

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Common Bowling Injuries: How Can You Prevent Them



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Hand and Wrist

	Signs and Symptoms	Common Causes
Bowlers Thumb	Localized pain/tenderness/paresthesia along thumb and first web space.	Overuse Improper sized thumb hole Friction
Carpal Tunnel	Weakness throughout the hand (pinching and holding objects) Burning, numbness, tingling in thumb and first 2 fingers	Increased bend of the wrist with throwing Overuse
Wrist Tendonitis	Pain with movement of the wrist Swelling around the wrist, redness Decreased motion	Overuse Form Fatigue Improper Form

Elbow

	Signs and Symptoms	Common Causes
Bowlers Elbow	Sharp/dull pain in forearm Pain when gripping something Weakness at the elbow/wrist Pain when bending the wrist	Overuse Form Fatigue
Annular Ligament sprain	Pain, swelling, numbness around elbow Pain along outside of forearm	Overuse Adding spin to the ball

Shoulder

	Signs and Symptoms	Common Causes
Shoulder Tendonitis	Bicep: pain at front of shoulder, occasional snapping feeling. Rotator cuff: Pain with raising or lowering arm. Stiffness reaching back. Weakness	Overuse Trying to throw the ball harder Improper form

Back and Lower Extremity

	Signs and Symptoms	Common Causes
MCL/LCL sprain	Pain in the knee of the sliding foot Tenderness along joint line	Improper alignment to the pins Abrupt stops at foul line
Low Back Pain	Pain along lower back Numbness/Tingling throughout the leg	Improper technique Too heavy of a ball Decreased core strength

Prevention Step I: Proper Form

Tips:

- Proper Fitting Ball
 - 10% rule the ball should weigh 10% of your body weight up to 16lbs.
 - Finger Holes not too big, not too small
- Let Gravity Help
 - The ball should mimic a pendulum
 - Assisting the ball down to add power puts increased stress throughout the arm
 - Avoid increased bending of the wrist during release
- End position
 - Shoulders should be level and facing the pins
 - Avoid twisting of the trunk

- Slide foot should be pointed forward and towards pins with knee just behind the toes
- Rest
 - Give your body the time it needs to recover

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Step 2: Prehab

Bowling can be a sport anyone can participate in at any age. Whether you are in a league or just playing for fun it's important to keep your body safe. Proper form and adequate rest are key in preventing injury in any sport. If bowling is something you plan to do frequently consider beginning a prehab program designed to strengthen and stretch the joints most used during the activity to ensure your body is ready for the repetitive forces bowling entails.

These exercises should be performed 3-5 times a week in order to build strength and endurance throughout your body. When your body is strong, injury is less likely.

The stretches included here should also be performed before you begin a game of bowling to warm the body up and prepare it for activity.

Please perform these recommended sets and reps for:

- Stretches and Balance Hold the stretch/balance for 30 seconds and repeat 3 times.
Aim to perform 2-3 a day
- Strengthening Perform at least 15 reps for 1-2 sets once a day.
- TA activation Hold for 10 seconds (remember to breathe) and repeat 10 times at least once a day

For more tips on techniques for proper bowling form please watch these videos:

- <https://www.youtube.com/watch?v=ISyjhd6LGI>
- <https://www.youtube.com/watch?v=hjbXpnKFByA>

***These exercises should not be painful and are meant as a guide. There is no guarantee they will prevent injury. If you begin to experience pain call IMGPT at 610-944-8140 to set up a consultation or evaluation to help determine the best action to take**



HAND TENDON GLIDES

Perform the following series of movements with your hand.

Start with an open palm (center image) and then bend your fingers to a claw hand as in the upper left image. Next, return to an open palm and then to an "L hand" as shown in the upper right image. Next, return to an open palm and then make a flat fist as in the bottom left image. Next, return to an open palm and then make a full fist with finger pads in your palm as in the bottom right image.

Finally, return to an open palm and then repeat the series.



WRIST FLEXOR STRETCH

Use your unaffected hand to bend the affected wrist up as shown.

Keep the elbow straight on the affected side the entire time.



WRIST EXTENSOR STRETCH

Use your unaffected hand to bend the affected wrist down as shown.

Keep the elbow straight on the affected side the entire time.



WRIST EXTENSION CURLS - TABLE

Hold a small free weight / dumbbell, rest your forearm on a table and bend your wrist up and down with your palm face down as shown. Slowly lower in controlled fashion.



WRIST FLEXION CURLS - TABLE

Hold a small free weight / dumbbell, rest your forearm on a table and bend your wrist up and down with your palm face up as shown. Slowly lower in controlled fashion.



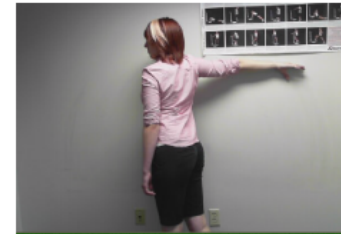
PUTTY GRIP

Place putty in your hand and squeeze it firmly and slowly. Reshape it and repeat. * may use stress ball



POSTERIOR CAPSULE STRETCH

While lying on your side, grasp the elbow of the arm closest to the floor and gently pull it upward and across the front of your body. *may also do in standing



Biceps Stretch

Standing facing the wall. Place the webbing of the thumb against the wall with the arm straight out to the side. Then turn the body away from the arm and lean into the wall. Hold the stretch.



Resisted Shoulder Flexion

Stand with back to band. Keeping elbow straight, lift hand up to shoulder height with theraband or free weight.



Single Leg Balance

Pick up one of your feet behind you so that you are standing on one leg. Stand up tall and look straight ahead. Repeat on other leg.

Do this in front of a counter for safety.

ABDOMINAL BRACING - TA ACTIVATION

While lying on your back, press your low back into the floor as you tighten your stomach muscles moving your navel down towards the floor. Place your thumbs 2 inches inward from your pelvic bone so that you can feel the muscle contracting.





Clamshell

Begin Exercise laying on either side, then bend knees and hips as pictured above. While keeping hips and knees bent at same angle, slowly lift top-side leg away from bottom-side leg. Lift leg up until hips and upper body begin to roll backwards. When this happens, stop the movement, and slowly lower the leg back to starting position. Keep ankles together throughout entire movement.

HAMSTRING STRETCH WITH TOWEL



While lying down on your back, hook a towel or strap under your foot and draw up your leg until a stretch is felt along the backside of your leg.

Keep your knee in a straightened position during the stretch.