

The Basics

Curved Bow Technique

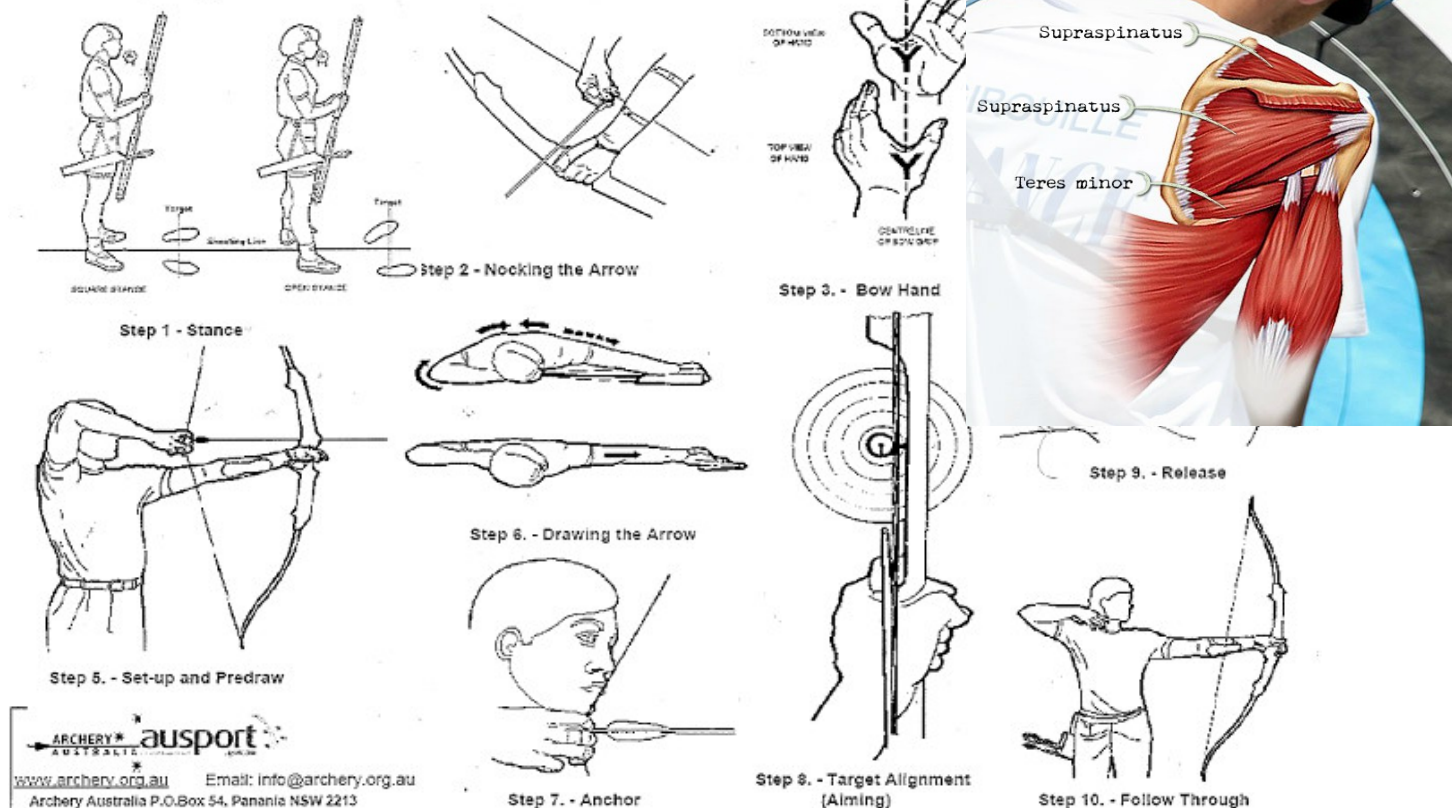
Stance- Stand tall with feet spaced shoulder width apart and parallel to the target. Feet will be lightly staggered. Keep your hips in line with the feet. Tuck your tailbone in to create a strong flat back. Bring your shoulders down and back.

Set and Nocking the Arrow- Hold the bow handle with a relaxed grip with the thumb pointing toward the target when raised. Position the arrow shaft on the arrow rest with the colored feather facing away from the string. Snap the nock onto the bow string under the locator. Wrap the first three fingers around the bow string at the first crease and slide them up to the arrow. (Beginners stay under the arrow)

Set up - Extend your bow arm and keep the elbow slightly bent to allow passage of the arrow. Raise the bow arm slightly up above the point of aim. Rotate the chest and shoulders so that the upper body is parallel to the arrow and perpendicular to the target. The drawing hand should be at the level of your nose. **Draw and Load-** Draw the bowstring back toward the side of your face. Elbow should be behind and parallel to the arrow shaft, not below it. Keep the thumb and little fingers relaxed in the drawing hand. **Anchor-** Firm contact should be made with the drawing hand and the side of the face.

Transfer and Hold- Transfer the draw weight of the bow from the arms and shoulder to the back by bringing your shoulder blade down and back. Keep the elbow parallel and behind the arrow. **Aim and Expand-** Look down the shaft of the arrow and place the point on the target. All the while, keeping good form throughout the body from the feet up. **Release and Follow Through -** Take a deep breath to expand the chest wall. Allow the bowstring to leave your fingers. Keep the back muscles engaged by pinching the shoulder blade back and down. Once the arrow hits the target, relax and retrieve your arrow.

Shooting Sequence - THE TEN STEPS



Anatomy and Injuries

SHOULDER

Repetitive drawing of the bow can create stress on the muscles of the shoulder joint leading to muscle strain, Rotator Cuff tendinitis/osis, impingement, rotator cuff tears, dislocations, and bursitis. Improper form, muscle imbalances, and draw weight can increase the instance of pain and injury.

FOREARM/HAND

Medial epicondylitis, forearm contusion (bruising), laceration, nerve compression, and tendinitis of the hand and wrist are common injuries associated with archery. Pain and stiffness may be evident as well as weakness. Injuries are associated with repetitive poor technique, heavy drawing weight, and decreased education about the equipment.

BACK

The muscles of the back are in constant use to help stabilize the body during the shooting sequence. Micro tears and inflammation can result from repetitive stress and strain producing a dull and achy pain. Improper technique and drawing weight can exacerbate the pain.

Treating and Injury: PRICE

As soon as possible after an injury:

Protect the area that is injured from further harm.

Rest the injured area to reduce inflammation and promote healing.

Ice the injured area. 15-20 minutes of icing can decrease inflammation and swelling.

Do not place directly on skin. Repeat 2-3 times a day for 24-48 hours.

Compression: If necessary wrap the area with compression bandages to reduce swelling.

Do not wrap too tightly

Elevation: Elevate the injured area above the level of the heart to minimize swelling.

***If there is obvious deformity, intense pain, swelling, increased weakness/numbness, or bruising, consult a medical professional.**

After 48-72 hours and swelling has reduced it is safe to use heat for discomfort and begin gentle stretching and strengthening.

Prevention

- Safety First!
 - Understand the rules and set up of equipment
 - Always maintain safe body mechanics
 - NEVER shoot an arrow if someone is in the field and range
 - Wear protective gear
- Know your limits! Gradually increase the draw weight.
- Warm up, cool down, and stretch!

RESOURCES

Palsbo SE . Epidemiology of Recreational Archery Injuries: Implications for archery ranges and injury prevention. The Journal of Sports Medicine and Physical Fitness. 2012; 52(3):293-299. <http://europepmc.org/abstract/MED/22648468>

“Learn Basic Archery Techniques for Optimal Performance.” Learn Archery.com. 2014. Accessed March 23, 2014 from <http://www.learn-archery.com/basic-archery.html>

Merlin Archery Center. Correct Shooting Technique. 2013. Accessed on March 23, 2014 from http://www.merlinarchery.co.uk/merlin-extras/resource/resource_beginners/beg_technique.htm

Harris Health System. “Archery Fad by Kids Could Shoot up Shoulder, Arm and Hand Injuries. 2013. Accessed March 22, 2014 from <https://www.harrishealth.org/en/news/pages/archery-danger-to-kids-injuries.aspx>

Mann DL and Littke N. Shoulder Injuries in Archery. Can J Sports Sci. 1989; 14(2):85-92.

<http://www.ncbi.nlm.nih.gov/pubmed/2736447>

Bolender G. “Physically Challenged Archery Equipment.” New York Bowhunters.com. 2013. Accessed on March 23, 2014 from <http://www.newyorkbowhunters.com/adaptive-equipment.html>

Venter J. “Archery Injuries” RcheryLifestyle.com. 2014 Accessed on March 24, 2014 from http://www.archerylifestylemagazine.com/nl/app/855/664649/edition_11_002_mix_haxholm_a_woman_of_mary_faces_archery_injury_2/2.htm

Rayan GM. Archery-Related Injuries of the Hand, Forearm, and Elbow. South Med J. 1992; 85(10):961-964.

Walker B. Archery Stretches and Flexibility Exercises. InjuryFix.com. 2014. Accessed March 23, 2014 from <http://injuryfix.com/archives/stretch-archery.php>

Common Stretches:

Best to perform after a brief warm up before and after shooting. Go to the point of a gentle stretch, not pain, and hold for 20-30 seconds. Repeat 1-3 times.

