


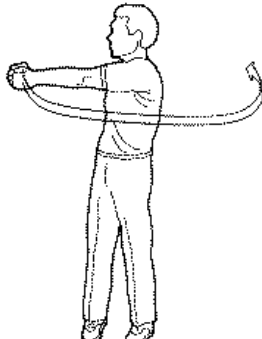


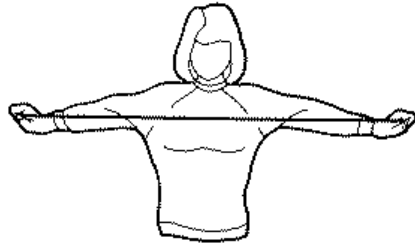
Archery Fitness - Stretching

Stretching Exercises

The following exercises are for stretching and warming up the muscles before shooting and for stretching and cooling down the muscles after shooting. These exercises will help prevent damage to muscles, tendons and joints and also increase flexibility. When performing these exercises, do not hold your breath at any stage, as it may cause dizziness. As you do each exercise the muscles will require more oxygen, so your breathing and heart rate will increase.

	<p>To loosen upper arm and chest muscles.</p> <p>Interlock the fingers with palms out. Extend arms above head, keeping fingers locked. Stretch upwards and hold for 10 seconds.</p>
	<p>To loosen back muscles.</p> <p>Cross arms in front of chest and place hands around shoulders. Slowly stretch hands towards middle of back as far as possible. Hold for 10 seconds.</p>
	<p>To loosen chest, top of shoulder and lower arm muscles.</p> <p>Bend one arm over head and down back, bend other arm around and up back. Grasp finger tips and hold for 10 seconds, then reverse arm positions and hold for 10 seconds. Keep backbone vertical during this exercise.</p>
	<p>To loosen shoulders and back muscles.</p> <p>Lock fingers together, extend arms and twist slowly as far as possible to the right and hold for 10 seconds. Then twist slowly to the left and hold for 10 seconds.</p> <p>Do not twist suddenly as it may damage backbone joints.</p>

To loosen neck and upper shoulder muscles. From a normal standing position with arms at sides, raise up both shoulders towards neck as high as possible, then move shoulders forward, then move shoulders back. Do this for about 10 seconds.



To loosen back and shoulder muscles.

Use a length of spear gun rubber or rubber tubing, grasp each end, raise arms to shoulder height and extend arms, keeping elbows straight, outwards and backwards by squeezing shoulder blades together. Hold for 10 seconds and repeat about 6 times.



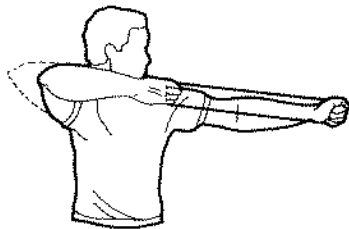
To loosen shoulder muscles.

Use a length of spear gun rubber or rubber tubing, grasp each end, raise one arm above head and the other arm level with shoulder. Pull down with arm and hold for 10 seconds. Repeat about 6 times. Swap arm positions and repeat exercise.



To loosen chest and shoulder muscles.

Use a length of spear gun rubber or rubber tubing, grasp each end behind back, hold arms at shoulder level, then swing arms forwards to stretch rubber. hold for 10 seconds. Repeat about 6 times.



To loosen shooting muscles.

Use a length of spear gun rubber or rubber tubing tied in a loop, imitate the shooting draw. Hold for 10 seconds. Repeat about 6 times.

Repeat exercise with opposite hands to balance muscle development.

Strength

Strength in Archery is not only the muscle power required to draw a bow, but also to maintain balance and stay steady as you aim. How strong you currently are dictates what poundage of bow you can use. A bow that is too strong for you will only do possible damage to your muscles and joints. A light draw weight bow will generally be used for beginners to learn basic skills without the need for strength. As skills are developed, then a stronger draw weight bow may be used and so strengthening of muscles will be required. Some of the above stretching exercises can also be used to strengthen muscles.

The training weight for a person to start with is usually established by finding the maximum load that can be lifted 10 times in repetition. (Usually about 75% of maximum strength). With all exercises, it is best to start with only a few repetitions of each exercise for the first two weeks, then progressively increase the number of repetitions over a period of about 4 weeks, until 8 to 10 repetitions can be achieved. Allow a recovery period between each exercise to avoid fatigue. Most importantly, if a particular exercise is causing pain in the muscles or joints, then reduce the weight and/or the number of repetitions. "No Pain, No Gain" is wrong. When the body feels pain, it is a message to ease off and slow down before you do damage to muscle fibres and tendons. Specific Movement. The muscle groups used in archery where strength is required are:

- the upper back and shoulder muscles to draw the bow,
- the upper and lower shoulder muscles to control the draw arm,
- the arm muscles to extend the bow arm,
- the finger muscles to hold the bowstring.

To strengthen these muscles, the exercise used should closely imitate the movement of shooting a bow. Remember, when strengthening specific muscles, include both right and left hand sides to maintain a balance of muscle strength. Other muscle groups often over-looked in archery are the upper and lower leg muscles to control balance, and the lower back and waist muscles to control a steady stance.