

How To Tune For Broadheads

Broadhead tuning requires a bow that is properly tuned in order to achieve accurate and consistent arrow flight. Shooting form, proper center shot and proper nocking point must be achieved before any broadhead shooting takes place. Helical fletching is vital for consistent and accurate fixed blade broadhead flight. We highly recommend shooting helical fletching with any broadhead. You want to spin the arrow in flight to stabilize the arrow/head, similar to rifling in a gun barrel.

Fletching clearance with the bow and rest is vital as well and often overlooked by many shooters in the tuning process. Fletching contact (even with feathers) can present as incorrect center shot or nock point adjustment and cause mass confusion during the tuning process. Incorrect arrow spine can also show center shot problems for finger shooters and nocking point or rest height problems for release shooters. Finger shooters put a horizontal torque on arrows and release shooters exert a vertical torque upon arrow release. Drop away rests can be very beneficial to eliminating or reducing these problems, but proper rest adjustments, spring tension and nock/fletch orientation can significantly reduce these as well.

Broadheads must be perfectly straight and aligned on the arrow. Broadheads should be assembled on the arrow, tightened and spun to check for straightness. Occasionally, inserts or outserts need to be turned in order for the broadhead to spin properly. 2-part epoxy is good for this purpose as its slow cure time allows the archer to check the arrow/head as the epoxy begins to harden.

Broadheads should be turned on the arrow as the epoxy thickens until the arrow/head spins true. Then stand the arrow up straight for the glue to cure. Hot melt adhesive is also useful (especially for aluminum arrows), but working time is very short and occasionally must be reheated to achieve a true spin. All of these problems must be addressed prior to an archer tuning broadheads. If all of these problems are corrected, broadhead tuning can be a snap.

Typically compound bows are tuned to shoot a bullet hole through paper and recurves/longbows are best tuned to shoot a bare shaft perfectly straight. Bareshaft tuning will work very well with compounds and give you the best fine tune if the shooter has good form and is using a drop away style rest. Normally these methods are done at 6 feet for paper tuning and 10 yards for bareshaft tuning. Generally, perfect broadhead flight can be achieved through these methods. If good broadhead flight is found, then arrows are shot at 20, 30, 40 yards, etc. and checked for broadhead grouping.

When broadheads group well, then consistent arrow flight is achieved. Occasionally, some minor rest and nocking point adjustments may be necessary to achieve good grouping. Broadhead groups that deviate high and low can benefit from minor nock or elevation adjustments. Conversely, groups that show a horizontal deviation can benefit from minor center shot adjustments.

In both situations, adjustments should be made minutely in 1/16in. increments or less, in either direction, until groups close and become more consistent. One important point to remember,

adding a broadhead to the end of the arrow is like adding small fletchings, any angle that the arrow leaves the bow is generally the direction the arrow will want to follow until the fletching is able to control and direct the flight of the arrow. If everything is in a straight line, straight and consistent arrow flight is easier to achieve.

Many bowhunters still believe that consistent grouping of field points and broadheads into the same sight point is possible and expected, this sometimes happens, but with today's faster and harder shooting equipment, this can be difficult. I, personally have had only a few bows that would group field points and broadheads together and all of those were slower energy cam type bows generally shooting under 260 f.p.s. and all of my recurves and longbows. However, with the advent of drop away rests, this has become much easier and more expected and normally these high performance bows will group both points right on or very close.

If a bowhunter wishes to attempt this, adjustments can be made to rest height and center shot to move the groups closer together. Broadheads react to the direction in which they are launched much more than target tipped arrows. If broadheads group in a different spot than the target points, adjust the rest in very small amounts in the direction the target points are hitting at. In other words, move the broadhead group to the target point group. If your broadhead hit to the left of the field points, move the rest to the right, if the broadheads are low, move the rest up. Just remember to make small adjustments when moving and pay attention to broadhead grouping and stop when they start to deteriorate. In that situation, just adjust for the best broadhead group and readjust your sights.

Broadhead tuning can be an arduous affair or can be very simple. A lot of time and patience is necessary to achieve this task, but as bowhunters, we owe this to the animals we hunt and our reputations as hunters and sportsmen to ensure that the most efficient and humane harvest is achieved and one that provides us with adequate sign to trail the animal and a short and humane harvest.

Best wishes and good luck in your tuning!

Yours in responsible bowhunting,

Mark Land

Muzzy Technical Support Specialist