



Buying your first recurve bow.

One of the biggest decisions a new archer can make after completing their beginners' course is to invest in a set of equipment. There may be a substantial financial outlay to be made, and a wrong decision can be costly and lead to much frustration.

The first decision that must be made is which style of archery do you want to pursue? The three main styles are Recurve (also called Olympic Recurve), Compound and Barebow. Initially we will tackle the recurve side of the decision.

Starting off in Recurve Archery.

There is an extensive set of gear to be purchased for those wanting to start in recurve archery, namely:

- Bow, which will consist of:
 - o Riser
 - o Limbs
- Arrows
- String (Essential)
- Finger Tab (Essential)
- Armguard (Essential)
- Quiver (Pretty much essential)
- Sight (Essential)
- Rest (Essential)
- Pressure Button (Essential)
- Chestguard (optional)
- Clicker (optional)
- Stabilisers, weights and dampers (optional)
- Sling (optional)
- Tools (optional)

The main decision to be made is the bow, which will influence many of the choices made on other items. If you are wanting to start to get some gear but cannot afford a bow or wish to put off that decision, you may consider buying a finger tab, armguard and chestguard and maybe a quiver. These are more "personal" items that will allow you to get more consistent results than relying on club gear.

When selecting a bow, there are two initial parameters to decide on:

- Draw weight
- Bow length

It is **CRITICAL** that new archers not buy a bow with a draw weight more than they can handle and new archers will always benefit from choosing a lighter draw weight rather than a heavier. As a rough guide, the following guidelines may help

ADULT MALE

20-24lb

ADULT FEMALE 18-22lb

JUNIOR 16-18lb

It is important to realise that the level of fitness and strength of an archer is not the most important factor in being able to handle a given draw weight, technique and correct form will enable you to handle weights as you develop and these are more easily developed with a lighter bow.

Bow length is the other factor. This is determined by your draw length (remember, draw length is not the same as arrow length!)

A rough guide is:

- If you're shooting more than a 29" draw, a 70" bow is recommended.
- If you shoot more than a 27" draw, it's a 68" bow.
- If you shoot more than a 25" draw, it's a 66" bow.
- If you shoot less than a 25" draw, you should consider a 64" bow (short limbs and a 23" riser).
- If you shoot more than a 31" draw, you should consider a 72" bow (long limbs and a 27" riser).

Most people should use either a 66", 68" or 70" bow. Please ask for advice on checking your draw length as it is NOT the same as arrow length. If in doubt or you fall in the middle of the recommendations above, a longer bow is the best choice in many cases as it will be more forgiving.

An excellent article on bow length and a video can be seen here:

<https://www.onlinearcheryacademy.com/how-to-choose-bow-length/>

OK, you have decided on draw weight and length. The next decision is which bow? Obviously, budget will come into it but some initial guidelines would be:

Get a better-quality riser rather than expensive limbs. A good quality riser will last for years and still perform well but as you develop you will probably change limbs several times.

Make sure they are ILF (International Limb Fitting) compatible. This will enable you to more easily upgrade in the future and be more saleable as second hand items. Some risers and limbs (mainly Hoyt) are called Formula fitting. These are not compatible with other limbs and risers and are mainly only found on high end Hoyt gear. For beginners, these are best avoided. Hoyt also refer to their ILF compatible gear as "Grand Prix". These are fine.

RISERS

Unless you need a 64" or 72" bow, make sure you get a 25" riser.

Avoid wooden risers, they are usually not ILF compatible, are harder to tune and limit the accessories that can be attached.

Make sure that the riser can have sights, pressure button fitted and have bushings for stabilisers and attachment points for a clicker.

For beginners, a lighter riser is going to be easier to handle. High end risers (The Hoyt Formula SR or Win&Win ATF-EX for example weigh about 1.28kg) are heavy which will tire you out quickly. The WNS Motive riser is an excellent lightweight riser at about 1.08kg and the Krossen Xenia riser is under 0.8kg.

Pick up the riser and see how the grip feels. Is it comfortable?

Insert one of the limbs into the riser. It should click into place “smartly” with little slop. If you shake the riser with the limb inserted it should not come loose. You can also insert the limb backwards and ideally it should still stay in place (this video <https://www.youtube.com/watch?v=hdDpjr1QOW4> at 21 minutes shows this procedure), while this is not critical in a beginner’s bow, it is an indication of quality.

LIMBS

Try not to buy over expensive limbs on your first purchase. Excellent limbs can be found for \$150 to \$200. Second hand limbs are a great option for an initial purchase.

Initially, you should plan on changing limbs every few months in the initial phase of your archery journey. It is best to start off light and move up in small increments of 2 or 4 pounds. Purchasing inexpensive limbs for your first sets will reduce costs. There is also a ready market for lightweight second-hand limbs.

The main factor affecting price will be the material the limbs are made of. Wood/fibreglass composite being the least expensive and then going through foam/fibreglass, Wood/carbon, foam/carbon, all carbon (though other combinations also exist). Foam is a synthetic, high-density foam that provides very stable, quality limbs. Many archers prefer wood core limbs as they can be more comfortable to shoot,

At this stage, correct draw weight and length are far more important than limb construction, so focus on that.

A couple of things you can look for when checking out a set of limbs. If in the shop, ask them to string the bow and check that the limbs are straight and have no obvious twists.

ACCESSORIES

Once a bow is selected, the following accessories are essential:

1. Sight
2. String
3. Arrow Rest
4. Pressure Button

SIGHTS

A good, basic sight will last a long time if looked after. Ideally, one with a worm drive to adjust the altitude would be preferred. Sights without worm drives can move if the locking screws holding them in place come loose.

Beginners Sights:

The WNS SJA-50 retails around \$50 and is a well-made, budget sight which we use on our beginners' bows. While OK to start with, there is a quality difference that will become apparent over time. Another to consider in this category is the Fivics Scorpion

Intermediate Sights:

The Shibuya Dual Click usually is around \$220 and is an excellent sight. Well engineered, easy to use and still found on some top level archers bows. In my opinion, it is the pick of the sights in this category.

Elite Sights:

A good sight can be moved from bow to bow and will last for years so if you have a larger budget and are serious about pursuing recurve archery, a high end sight (Shibuya Ultima or Axcel XP are the main ones in this category) will last for years but retail for around \$500 to \$600 or more.

Avoid very inexpensive sights which are often made entirely of plastic.

STRING

If buying a bow from a dealer, get them to supply a string. If possible, ask for a string made from Fast Flight, 8125 or similar material. Do not buy a dacron string unless you are getting a wooden riser. The dealer will probably fit a brass nocking point. These will work initially but should be replaced eventually with a tie on nocking point. Best time to do this is once you are shooting reasonable groups at 20 metres. Ask a coach to assist with setting the nocking point position and tying a new one.

The main disadvantage of the brass nocking points is that they cannot easily be moved to improve tuning and can damage your tab surface and maybe the nocks of your arrows. Tie on nocking points are easy to learn and there are lots of videos on how to tie one on Youtube. I would recommend the ones on Jake Kaminskis channel or the Online Archery Academy channel with Ashe Morgan.

RESTS

Arrow rests come in a wide variety. Luckily very good rests can be obtained for around \$50-\$60 and will last for years.

Avoid rests that mount underneath the pressure buttons on the opposite side of the riser (the AAE SuperFlyte is an example), these are usually better suited to barebow, are overly complex and make fine adjustment of the pressure button difficult. They provide no real benefit to a beginner recurve archer.

If looking for an inexpensive option, the plastic Hoyt Super Rest is a great option. At only \$5, they are excellent value. These are still used by many top recurve archers, and World and Olympic

Championships have been won using these rests. Buy several so you have spares. If using a pressure button, use a utility knife to carefully remove the small plastic tab next to the hole. Leave this in place if not using a pressure button.

Several brands make clones of the Super Rest. From what I know they are fine, but the original super is proven performer at a budget price. Hoyt also makes a more robust Hunter Rest, easily distinguished as it is in black plastic. This can be used if not using a pressure button.

If happy to spend a little more, the Shibuya Ultima Rest is fantastic value at around \$60-\$70. These rests will last for years, are easily adjustable for different diameter arrows and can be easily moved to a new bow when you upgrade.

PRESSURE BUTTON

These are sometimes referred to as a “plunger button” or just “plunger” or very occasionally as a “Berger button”, they all mean the same thing. This item is inserted into the riser so that the arrow rests against it. They can be adjusted left and right to tweak the angle that the arrow sits on in relation to the centre line of the bow (centre-shot) and have an adjustable spring to do fine tuning. Most quality buttons come with a variety, usually three, of springs of varying strength. For a beginner setup, select the mid strength spring and adjust tension so it feels moderately firm. Centre shot should be adjusted so the arrow appears to sit just to the left of the centreline of the bow (for a right-handed archer).

A basic button such as the WNS S-PFC version would cost about \$30 and is very serviceable. The Shibuya DX button is a great option usually around \$60 - \$70. The most common high end button is the Beiter at around \$180. Worth trying out, again if you are seriously committing to recurve archery.

For most beginners, it is worthwhile getting a button, but do not spend too much time trying to adjust it until your form reaches a reasonably advanced stage, most typically able to put most, say 90% of arrows in the gold at 30M. Do make sure that your centre-shot is correctly set, get an experienced recurve archer to show you how this is done.

A common mistake made by new archers is not making sure all the grub screws on your button are snug. They are often fitted loose in the factory and will come loose when the bow is shot and are easy to lose. Always tighten these BEFORE shooting your bow for the first time and check regularly after that.

PERSONAL EQUIPMENT

Personal equipment would consist of:

1. Tab
2. Armguard
3. Chestguard
4. Quiver
5. Sling

TAB

The finger tab is the most important piece of personal equipment a recurve archer owns. In fact, it is so important that international archers when travelling never leave their tab in with the rest of their kit but always keep it with them. Other gear can be replaced easily, but a tab is usually highly personalised.

For beginners, an inexpensive tab is the best choice as you will probably try a few before settling on one you like. The WNS SF100 tab is usually around the \$40 mark and has all the features normally required. An adjustable and removeable shelf, solid metal plate and quality leather. Tabs such as the Excel Contour or the WiaWis EX Tab have many features but can be overly complex for a beginner. The Australian made Fairweather Modulus tab is a very simple tab but very high quality. It is normally around \$100 but care must be taken in selecting the correct fit.

A good basic tab worth considering is the Black Widow tab. Retails for about \$30 and is a simple, easy to use item.

ARMGUARD

A good armguard will last years. Best options are one made of soft and thin plastic, use sliding fasteners on elastic rather than plastic clips (which can tend to break). Thin armguards reduce the chance of the bow string hitting it which can be a distraction and can also cause wear on your bowstring.

Armguard sleeves are often a popular choice but are not adjustable and can get sweaty and uncomfortable in hot weather. In cold or wet weather when you need to put them over additional clothing layers, they can be overtight and hard to put on.

If you have issues with hitting your elbow (this often applies to female archers) consider a longer armguard at least initially until your form develops enough to remove this issue. Advice from a qualified recurve coach will assist you to change your technique.

CHEST GUARD

A chest guard has 3 main purposes. Firstly, it holds any clothing against your chest, reducing the possibility of catching the bowstring on release. Secondly, if at full draw your string is in contact with any part of your chest, it provides a more consistent surface that is less likely to deform around the string. Thirdly, it reduces the chance of injury from the string hitting any part of the chest. Contact of the string on the chest has a significant detrimental effect on the consistency of the arrow flight and can dramatically affect tuning.

Even for archers where the string is not in contact at full draw a chest guard is still a good idea. On release, fingers cause the strings initial movement to be towards the chest, and the effect is even greater for poor releases. A chest guard will minimise any disruption to the strings movement.

Chest guards are often seen as a female requirement. A quick survey shows that they are nearly universally used amongst elite male archers as well, 7 out of 8 quarterfinalists at both the 2021 World Championships and 2016 Rio Olympics were using them.

It is a good idea to start using a chest guard as early as possible to get used to the feel while shooting.

Win & Win, Shibuya and Easton make good quality guards that will last for years. Custom fitted guards can be ordered from Artebo (see <https://www.artebo.de/en/chest-guard/individual-version/4/chest-guard-individual>) which are great if you have trouble finding one that fits. If possible, try one on in the shop as fit is important. If ordering online, check out what other archers are using to assist with fit.

QUIVER

A personal quiver can hold your arrows, accessories such as arrow pullers, Allen keys etc, binoculars, and other personal items. While ground quivers are used on beginners' courses, they are not recommended once you have your own equipment.

The two main styles are the "field" quiver, which is shorter, holds the arrows nearly vertical but pointing slightly backwards and the "target" quiver that is longer and hold the arrows pointing forwards at a slight upwards angle.

Which one you choose is usually down to personal preference. Best bet is to buy an inexpensive one to start but have a look at what other people shoot and think about the options before purchasing a high end quiver.

Pros and cons of the styles are:

1) FIELD QUIVERS

Pros

- Smaller
- Lighter
- Easier to move around in tight spaces (e.g. undergrowth areas on a field course)
- Arrows less likely to fall out while moving up and down hills or bending over on a field course

Cons

- Have to twist to check arrows
- Less storage space for accessories

2) TARGET QUIVERS

Pros

- Easy to see arrows when selecting them and check for damaged arrows
- No need to twist to pick arrows
- Higher end models have lots of storage pockets

Cons

- Tend to be more expensive
- Arrows can fall out if bending over (especially on a field course)
- Usually larger and heavier
- More expensive

SLING

One of the critical requirements of archery is a loose/relaxed grip on the bow. Gripping the bow will cause it to move during the shot, opening your groups and reducing your score. In recurve archery, we try not to grip the bow at all, allowing the bow to fall from the hand and using a sling to catch the bow. Slings come in 3 main styles

1. Finger sling – most popular among recurve archers
2. Wrist sling – Often seen in compound
3. Traditional Wrist Sling – rarely seen these days

Finger Sling

This consists of a simple loop, often made from a shoelace which loops around the thumb and either index or middle finger. Used by almost all recurve archers and highly recommended for this style.

You can buy a premade one for about \$10, but these are not adjustable. Or you can make one out of a simple shoelace, which is very flexible and adjustable.

Wrist Sling (also known as a bow sling).

This is a loop which attaches to the bow below the grip. Often seen on compounds and barebows (although it should be noted that outside of the US and Australia, finger slings are the most popular choice among elite compound and barebow archers). Not recommended for recurve as the bow tends to overswing.

Traditional Wrist Sling

Consists of a loop around the wrist that then goes round the bow and attaches to itself in front of the wrist. Quite popular in the 70 and 80s, rarely seen these days

The finger sling is by far the best option. Avoid commercial made ones, shoelaces are a better and far cheaper option being easily replaced if lost and adjustable to any length. An experienced recurve coach can show you how to make and use one and several You Tube videos cover this also. It is a good idea to begin using one early in your career (within a week or so after completing your course is fine) as this will help to learn putting it on and off until it is second nature and allow you to start developing good bow hand technique.

NON-ESSENTIAL ACCESSORIES

The main non-essential accessories for beginners would be:

Stabilisers

Clickers

Arrow puller

These items can be purchased early, but you should consult your coach before using them on your bow.

Stabilisers

Stabilisers are used to achieve several things:

1. Increase mass weight of the bow
2. Move part of that weight a distance from the bow
3. Reduce vibration
4. Improve aiming stability
5. Improve dynamic stability

It is beyond the scope of this summary to discuss these in detail, but in summary we use them to try and make the bow react in a more predictable way before, during and after the shot and make it more comfortable to shoot.

For a beginner, a single long rod with a small amount of weight is sufficient. Long rods range from 25" to 34". Normally you would not require more than 30". Long rod length should relate to the length of the bow. If shooting 66" then a 25-28" rod, if using a 68" or 70" bow consider 28-30".

A good initial rod is the WNS SMC long rod. It comes in a wide range of lengths, includes a removeable damper and 2 weights. Try to avoid rods that have a built-in damper, a removeable damper allows you to change to different dampers or remove it altogether.

Once your form develops, you can try various v-bars, extenders, weights and dampers to find your preferred setup.

Clicker

The clicker is one of the most important pieces of equipment used by successful recurve archers. It has 2 primary functions

- provide a more draw length
- provide a trigger to enable a smoother more consistent release and follow through.

You should not rush into using a clicker until your form has stabilised and you should get some coaching advice before attempting to use one. Good clicker technique will allow your scores to improve rapidly but attempting to use one before your draw length is consistent without a clicker will only lead to frustration.

Clickers come in 2 main varieties

- riser mounted (most common)
- sight mounted (often favoured by younger archers)

The riser mounted clicker attaches with a small screw to holes drilled in the riser. It clicks against either the riser or a small plate or extension attached to the riser.

Sight mounted clickers mount on the extension bar of the sight. They allow younger archers to shoot a longer arrow and move the clicker back as they grow and their draw length increases so they do not have to purchase new arrows regularly. They also can be useful with low poundage bows allowing a longer and therefore softer arrow to be used.

The most popular clicker is the Beiter clicker which retails around \$25. The Wiawis ACS Carbon clicker is an excellent clicker with a very clear sharp sound and is usually around \$45.

Arrow Puller

These help in removing arrows from targets. These become more useful as your poundage increases over time.

ARROWS

Apart from the bow, the most important decision to make is arrows. These days there is a huge variety of arrows available as either complete arrows or shafts that you make up yourself.

Unfortunately, it would be impossible to create a comprehensive guide to arrow selection without running to many pages.

The best option is only buy from reputable dealers with experience in selecting target equipment. In Victoria, Urban Archery and Eliza Archery are both great options.

Good quality carbon arrows at reasonable prices are easily available and would be preferred over aluminium ones. Carbon is less prone to bending and is very robust. Initially get pre-made arrows which are cut to length and include points, vanes and nocks. **It is a good idea, if possible, to buy spare components (vanes, nocks and points) so these can be replaced if they are damaged.**

Building and fixing your own arrows is a valuable skill that will enable you to always have good quality arrows to hand and can experiment with different setups. There are many excellent videos on arrow building online and it is a skill worth learning early.

TOOLS

Over time, expect to accumulate several tools to maintain your gear. Main ones I would recommend would be:

Bow square, used to check the brace height and nocking point position on your string.

Bow stringer. Essential to safely string and unstring your bow

A small Phillips head screwdriver (sights often use Phillips head screws so if it comes loose, having one will enable you to fix it quickly)

A sharp knife with retractable blade (Stanley knife or similar)

Small shift head spanner

A set of Allen keys. Best option is the type that come in a single kit, would recommend getting both a metric and imperial set.

Cigarette lighter (useful for finishing off tied nocking points)

We hope the above is useful. The variety of archery gear available is huge and new products become available nearly daily. Please don't rush out and buy gear without doing a little research first and deciding what is most important to you.