



How to choose a Kayak paddle – Part 1

These days there is plenty of choice when it comes to choosing a kayak paddle.

Paddles are very personal pieces of equipment. There is no one paddle that is best for every occasion or for every person. Everything is a compromise but in the following articles I hope to cover the points that will help you choose the right paddle for you.

Taking care

So why is it important to take care in selecting the right paddle? Surely, if it's got a shaft and a couple of blades it will do the job. I wouldn't deny for one minute that this is true, but for your skills to develop, certain features are going to be beneficial. The right paddle will help you maintain good technique and stable smooth strokes that will in turn reduce the risk of injury.

When looking to buy it's worth considering the following points: Length, "feather" (The amount in degrees to which the paddle blades are offset) Durability, and Strength. All these points will be dictated by your intended use.

Getting an idea

I find standing in my local shop re-enacting the latest extreme video with a new set of paddles in my hand a good laugh but it's probably not that scientific.

Perhaps a better plan is to try out as many of your friend's paddles as you can, when you're actually out on the water.

Alternatively there are sets of split paddles available on the market that can be set to any "feather" and allow an increase in length of up to ten centimetres. A set of these can be useful for coaching purposes as you can allow your clients to sample a broad spectrum of paddles.

A recent edition to the market is the 'Padlock' system from Lendal. This design allows shafts and blades to be interchanged to suit your needs on the day and can be split making transporting the paddle easier.

Cost

The initial outlay for a good paddle can of course be expensive. If you're prepared to put in some thought though you should find that the expense is worthwhile.

Let's look at what's available.

Paddle length

The choice here is wider than you might think and unless you're just starting out there is more to it than measuring it against your own height. Much more important are its intended use and the length of boat you'll be in.

Generally speaking long boat means long paddle and short boat, short paddle.

Some facts worth knowing are that the longer the paddle the greater the circumference it will have to travel when forward paddling. Therefore the further it has to pass through the air, the lower your "stroke rate" (This is the speed at which your paddle completes its full movement when forward paddling) will be. This is important if you need to pick up speed quickly such as when you're exiting a small eddy into a fast current.

Longer paddles give greater turning leverage but if too long it will be difficult to get into a vertical plain for "high angle" (When the paddle is used in a vertical or near vertical position) paddle strokes. The longer the paddle the more likely it will "flutter".

A note on "flutter"

This is the side-to-side movement the blade can make during the "power phase" (The time at which there is force being applied to the paddle) of a stroke and causes energy to be wasted. To lessen the "flutter" you naturally grip the shaft harder and this can lead to wrist injuries as well as it being inefficient in energy terms.

To see "flutter" in action watch a friend paddle as fast as they can while you concentrate on watching their blades. You should see the blades moving slightly from side-to-side as they travel through the water. One obvious cure is to paddle only as fast as to not create "flutter" but of course this is not always possible. Thankfully the manufactures have a whole host of ways of lessening this problem. More on "flutter" later.

Ideally you will hold your paddle with each hand an equal distance from each blade and wide enough apart that your elbows are bent at about ninety degrees.

If this is the case a short shaft with your hands only two or three inches from each blade allows good control for quick precise strokes. The drawback to this is that your "stroke rate" will be high. This will mean you'll be doing more strokes per kilometre. This will become an issue if you intend covering long distances.

If you look closely you'll notice some paddlers with a short paddle deliberately "choking" (Sliding both hands down the shaft placing them closer to one of the blades) the shaft to get the leverage back when they really need it.

For Free - style boating it is useful to use a short paddle because it is easier to keep them clear of the water whilst vertical and thus you avoid "killing" the move.

So for long trips you want a long paddle and for the times you need to accelerate quickly you'll want them to be short but only in relation to you and your boat.

Shaft diameter

How big are your hands?

Whatever feels comfortable is probably best. It is thought that too wide a grip can lead to tendon injuries. Many manufactures offer a selection of shafts so if it doesn't feel comfortable try another size.

Oval shaped shafts

The better you get at performing an action without having to watch yourself doing it the more fluid and effective that action will become, like changing gears in the car.

Oval grips help you with this as they let you identify that you are holding the paddle correctly to perform a stroke without you having to look at your hands. Some paddles have an oval area for the control hand, some for both hands and in some instances the whole shaft is oval. You'll have to decide which you prefer but don't worry too much; a new paddle will often feel a little alien at first.

Tip

If you grip your paddle shaft too tightly you limit your muscles ability to receive feedback off the blades and in turn move them as precisely as is sometimes required. Some surf wax rubbed on your paddle shaft will make it easier to hold with a more relaxed grip.

Modified Crank Shafts

These are the ones you see with a curve in the position your hands are placed.

These shafts are designed to be more efficient than a standard straight shaft and reduce the chances of long-term injury. There are two main types, neutral modified crank or positive modified crank.

The bends in the shaft allows the third and fourth fingers to aid the first and second during the "power phase" of the stroke so that more muscle groups are utilised.

A positive crank sets the blades slightly in front of the shaft, which produces slightly more reach on each stroke. This in turn though will mean that the blade must be lifted higher to clear the water on reverse strokes that may or may not be a problem depending on the type of paddling you do.

Neutral cranked shafts keep the blade in line with the shaft and will feel more like a straight shaft but have the benefits of reducing the chance of injury. As you take each stroke with a cranked shafted paddle the blades will set themselves as they catch the water.

These types of paddles are normally made up on an individual basis though some shops will have examples for you to look at, and any good canoe shop will have staff able to direct you through an order.

Materials

Wood although rarely seen these days is great for cold days on the river as it conducts very little heat away from your hands. The shaft can be sanded down to the required diameter but some maintenance is needed to keep them in good order. The greatest problem is that they are heavy compared to some of the other materials now available.

Perhaps the most commonly seen paddles are made up of an aluminium shaft with plastic blades. These are perhaps the least aesthetically pleasing but are usually the least expensive option. That's not to say they should be avoided. They are lighter than wood and parts can usually be replaced if damaged.

The greatest weight to strength ratios can be found in composite paddles and they are generally considered the most aesthetically pleasing. Fibreglass although in its pure form isn't massively strong, is durable and quite flexible. Laminating the glass with carbon helps to provide more strength.

Like wood composite paddles have good insulating properties with the added advantage of requiring less maintenance. Composites also don't suffer from fatigue and corrosion like their metal counter-parts.

Arguably the strongest paddles available include layers of Kevlar in the construction, which is incredibly strong as well as light.

Any difference in price between paddles is usually due to the grade or quality and therefore strength of the materials used. There are obviously times when strength is less of an issue than weight but as I mentioned before there is no one paddle that is best for every occasion.

See Part 2 of this article where we'll be exploring differences in strength, weight and blade shape.

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Article by Alan Pashley, Aspirant Inland L5 Coach

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