

Marathon Kayak Paddling Technique

The overall aim of improving your paddling technique is to paddle more economically and therefore conserve your energy for `burns' or a devastating sprint finish, coupled with a **faster cruising speed**.

The stroke can be broken down into **four phases**, which makes it easier for the coach and paddler to discuss. Areas where improvements can be made are the catch, power phase, exit and recovery. Improvements in technique will inevitably lead to the paddler becoming increasingly confident, such that his or her body weight will be totally committed to each paddle stroke i.e. supported by the resistance of the water.

Notes - the `stroke side' relates to the arm actually doing the work, the one nearest the water and the `top arm' is the one pushing through the air getting ready to start the stroke.

The Catch (The blade enters and locks onto the water at the start of the stroke).

The paddle enters the water quickly and cleanly (ie little or no splash), close to the boat and as far forward as possible with the blade at 90 degrees to the direction of pull (but not 90 degrees to the direction of movement of a wing blade!). This ensures that the paddle blade presents its maximum area to the direction of pull.

The arm remains firm and straight (but not stiff and tense).

The trunk and shoulder must not begin to unwind before the paddle is fully in the water. This ensures that the powerful muscles of the back and shoulders are in their strongest position for the subsequent pull.

The Power Phase (The blade is immersed fully in the water at the start of the stroke, power is applied by pushing on the footrest until the blade exits the water).

Once the paddle is fully in the water the trunk should rotate enabling an initial straight arm pull using the large trunk muscles.

The top arm acts as the pivot point during this straight arm pull with the lower arm side.

This first part of the power phase takes the paddle from a slight forward angle, through the `vertical' position (in relation to the boat when viewed from the side). The `vertical' position of the paddle in relation to the boat should be well in front of the body and near the front of the cockpit and should be maintained until level with the hips.

To maintain maximum boat speed the blade must accelerate through the power phase as the leverage increases. The wing blade will naturally drift/pull out to the side (this effect increases as more power is applied). For maximum effect the blade must not be allowed to slip water and therefore must be kept upright and at right angles to the direction of pull.

The top arm supports/pushes the paddle shaft forward in front of the face to full arm extension, the boat moves past the blade which is fixed in the water. This action should take place at eye level in order to ensure that the blade in the water does not go too deep, that the paddle is kept as close to the vertical (in relation to the water) as possible, and to prevent lifting water, towards the end of the power phase, by the blade in the water. The emphasis is on guiding the paddle with the upper hand rather than pushing hard.

The trunk should rotate during the power phase but should not rock/move backwards as this would cause the boat to pitch backwards. As the trunk rotates, the leg on the paddling side is straightened (extended) as the foot pushes firmly, but not forcefully, against the footrest in order to impart the pull from the paddle to forward movement of the boat. The leg on the opposite side is flexed at the knee. (Some paddlers fix pull bars to their footrest to assist

with balance when the opposite leg lifts clear of the footrest). This flexing and extension of the legs during the recovery and pull stages of the stroke gives a cycling motion with the knees alternately rising and lowering to facilitate the rotation of the trunk from the hips. Failure to rotate the trunk sufficiently is usually indicated by this cycling action not being apparent at the knees. The elbow will be slightly bent at the end of the power/stroke phase as the hips come level with the blade. Allowing the body to pass the blade results in a less powerful pull and slows the boat as the right angle of the blade in relation to the pull can no longer be maintained and the elbow has to bend to a weaker angle for pulling. It is also more unstable.

The Exit (The blade is clipped from the water, before the hand nearest the water has passed the hips). The blade is clipped quickly and cleanly out of the water as the hips come level with the pulling hand. The wing edge should lead out of the water to prevent water being lifted. A slow exit of the blade from the water will slow the boat as the forward momentum of the boat drags the blade forward through the water.

As the lower hand quickly lifts the blade vertically out of the water to shoulder height, (shoulder stays level and elbow only rises minimally) the top arm remains extended and still at eye level. This gives an apparent pause in the stroke during this glide phase when both blades are clear of the water. The exit phase ends with the paddle held parallel to the water at eye level with the leading arm fully extended in preparation for the entry phase of the stroke and the back hand at shoulder level.

The Recovery (air work) - (The paddle blades are clear of the water preparing for the next stroke). This phase starts with the trunk rotated 30-40 degrees forward from the hips towards the side of the next paddle stroke. The back is straight with a slight forward lean (approximately 80%) but the trunk is not rocked forward, as this would cause the boat to pitch forward. A common mistake is to rotate the shoulders but not the whole trunk. The shoulder and forward arm are relaxed but firm (not stiff) and the arm is extended at eye level with the arm, elbow, wrist and hand in a straight line.

The fingers are relaxed, but still controlling the paddle shaft. If the upper hand grips the paddle too tightly it will be impossible to extend the upper arm fully. Also, if the wrist drops, so that the fingers are pointing into the air, the paddling position is weakened and repetitive strain injury to the wrist can result.

The back arm has started this phase at about shoulder height causing the paddle to be held parallel to the water in front of the face. As this arm drives/pushes further forward at above shoulder level, the blade being prepared for the next paddle stroke pivots in the forward hand and is driven into the water for the catch with both arms and shoulders together down towards the water. As the backhand pushes forward at shoulder height or just above, the blade being prepared for the next paddle stroke will pivot in the front hand and move towards the water. Transfer the foot pressure on the footrest. If the backhand is not pushed forward at eye level it will be difficult to place the paddle in the water close to the boat.

The front forward arm remains extended and the shoulder drops towards the water as the backhand takes the responsibility for placing the paddle in the water.

The leading shoulder should not move backwards and the trunk must not unwind before the paddle enters the water fully.