

**PADDLE**  
ENGLAND

# BODY & BLADE

FLATWATER RACING  
TECHNIQUE

**GUIDE 3**

ADVANCED  
TO  
ELITE



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## **SUMMARY**

# FOREWORD

This guide aims to build upon the content delivered in guides one and two and add further detail around the finer points of forward paddling technique for the advanced to elite paddler.

At this stage, a paddler should be displaying higher levels of control over their body positions as well as grasping complex concepts and enacting them in training, and racing. It should be acknowledged that technique is never finished and is always a work in progress. As such, it is important that a focus on technique is maintained and remains a key part of a paddler's training programme, regardless of how good their performances on the water are.

Paddlers are required to effectively hold shapes and patterns under physical and psychological load and repeat this consistently at maximum effort in a race. There is little benefit in only being able to demonstrate perfect technique during a float, a warm up, or on a capped paddle, or on a paddle ergo machine, if a paddler is then inefficient in a race situation. Paddler's must be able to do both and this requires deliberate practice.

The use of the word elite is based around technical understanding and execution, not performance-based results. If a paddler is not quite ready for this level of information, be sure to revisit and apply the knowledge in guides 1 and 2 before progressing to this guide.

## **A note on language**

Often when talking about paddling technique, coaches will use phrases and terms which have meaning to them. For example, "fixed" or "locked paddle" or "pulling with straight arms", all are phrases coaches may regularly use but may have different meanings based on how a coach is seeking to use them. Often, they are meant as metaphors or a way to visualise what a coach wants the paddler to understand and try to do.

In this guide we are aiming to attain a common understanding rather than a common language. The reason for this is many coaches use different terms to convey the same meaning. This is not necessarily a bad thing as it can be a positive to have multiple ways to explain a concept and to help cater for different ways of thinking and understanding. As long as we have the same underlying principles to our forward paddling technique, the language used should be open to change and allow all learners to grasp the fundamentals. **2**

# BODY

## Upper Body

The upper body is a key part of the paddling chain. It is used to transmit the power generated from the legs and to generate additional forces to propel the boat. It is also what enables us to remain stable within our boat, allowing us to resist and generate these forces. Without a strong core, stabilisers and back muscles, we cannot add too, nor contain the power from the legs to the paddles into the water.

The upper body is rotated forward (images 1&2) with the top hand above, and in front of the elbow, the elbow is below and in front of the shoulder with a relaxed hand grip (where possible). The elbow is never behind the body. Whilst it may look from the side as if the elbow is behind the body when seen from above, with the body rotated, it remains in front of the shoulders (image 4).



Image 1



Image 2



Image 3



Image 4

Elbows: Imagine a press up position and draw an imaginary line from the shoulder to the hands on the ground, the elbows are below the shoulder and behind the vertical line, the wrists are above/in front of the elbow. When paddling, the elbows should never be above the shoulder or the paddles as these are weak positions to resist unwanted movement or to generate force.

Coaching cues such as “keep the elbows pointing down” can potentially help, as elbow height and direction can negatively affect paddle exit and entry, causing smaller muscles to do too much work. This can then have negative knock-on effects within the kinetic paddle chain (see images 5 & 6) keeping the elbow downwards, towards the water, during the entry phase can also assist with keeping the downwards pressure from the top shoulder into on the blade in the water



Image 5



Image 6

### Key Coaching Tip

1. The forward arm is close to horizontal in the air and ready to drop to the water image 1
2. The top hand is no higher than face/head height (image 3).
3. The top hand is in front and higher than the elbow. The top hand wrist is below the paddle shaft, and the elbow is below, and in front of the shoulder, with the elbow pointing down (image 4).

The head is up, and the shoulders are down in a relaxed position when sat up tall. The shoulders should not be lifted by the neck muscles or hunched up close together, as these small neck muscles fatigue quickly. Paddlers are aiming to stay relaxed and engage the larger muscles such as the latissimus dorsi, as these produce more force for longer rather than small muscles which fatigue quickly and can fail sooner. Additionally, it can also lead to neck aches, headaches and cause tightness in the shoulders and trapezius which paddlers will wish to avoid.

The shoulders should be down and engaged onto the rib cage (image 7), whether this is with the paddler's body having a slight lean forward or sitting near vertical. This allows the forces of the paddle in the water to be resisted more easily than if the shoulders are lifted up and off the ribcage - as this requires effort to hold in place and to resist those same forces generated by the paddles.

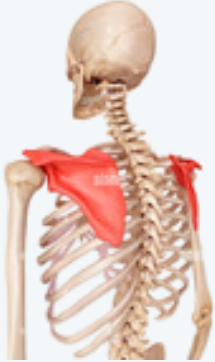


Image 7

The athlete should be looking forward and never down, and aim to have a relaxed face and a neutral chin (see images 1&2). Bio-mechanically, looking down has a similar effect to raising the top hand above the head. The impact of which is a weak position for the top arm to resist forces. Therefore, it is important for a paddler to look forward.

A way to coach this is to ask a paddler to complete a press up in the correct set up position (hands at shoulder height). They should be able to complete this quite easily and produce a good amount of force in the process. Now repeat but ask the paddler to do a press up with their hands above the head. Make sure there is a cushion or pillow beneath the athlete's face as they may face-plant or have their legs slide backwards. The paddler should struggle to complete a press up in this position and won't produce as much force in this position. As such, this easily highlights the importance of correct upper body positioning to express a high level of force through the shaft to the blade.

Another exercise to express this is to ask the paddler to assume a press up position and hold with their head down, looking backward to their ankles. Then ask them to assume the same position but have their head looking directly forward i.e. straight at the floor. Ask the athlete to explain the differences they felt. They should say that initially, letting the head hang down feels easier but soon the shoulders begin to fatigue and it becomes harder to maintain the position. They should find that looking straight down maintains a straighter spine angle and engages the core musculature which helps resist the force over a longer period of time.

It should be noted that with good posture, the diaphragm and rib cage are allowed to extend fully down and out which therefore allows a fuller breath to be taken. All things being equal a fuller breath has systemic advantages because not only does this mean an increased oxygenated blood flow supply to the working muscles, but also to the brain which assists tremendously with balance, mental capacity and enables technique control and race planning, there is a greater chance of getting more oxygen into the body and holding a good, strong position for longer. Good breathing comes from a calm brain with extra mental capacity to think about technique and race execution.

Images 8, 9 & 10 below all show paddlers who are sat up tall with their chest out and head looking forward



Image 8



Image 9



Image 10

## Top Arm

The top arm resists the upward water forces, it controls the path of the submerged paddle and moves with the body. It should not push forward whilst the paddle is in the water. It should move forward once the paddle has exited the water (Image11). This top arm control is most obvious at the standing start, when under the most load, and can highlight issues it is normally hard to identify.

Image 12 illustrates the 'D' shape. This is made up of the straight paddle shaft and the curved arms and body. This shape moves around the 'V' shape on the front of the cockpit when seen from above. The paddle shaft, when viewed from above, remains parallel to the chest and shoulders throughout the stroke (we explain this in more detail later).



Image 11



Image 12

This is an important concept to grasp because if the straight edge of the D gets closer to the chest or shoulders i.e., the D collapses or enters the V of the cockpit, it suggests a deficiency in the stroke. This is usually from the top arm doing one or more of the following:

- If the top arm is pushed forward whilst the paddle is submerged - therefore opening the D- this shortens the time the paddle is at a positive angle, lessening the power phase and usually increases drag at the rear of the stroke. Additionally, if the top arm is pushed up, it has the same effect of changing the D shape and can actually lift the submerged paddle back out of the water leading to no downward force on the paddle. This is often seen at the start under maximum load. This means force isn't applied down the shaft and the body isn't moving as one, which in turn means a paddler isn't using their body's maximum potential. To try and stop the top arm pushing forward or up, encourage the top shoulder to apply force rather than the top hand. The shoulder is fixed to the body so it can't fly away! A simple cue is think top shoulder to driving foot!
- If the top arm is pushed across the body whilst the paddle is submerged (see images 13, 14 & 15), this effectively moves the paddle shaft in an unwanted way with no downward force being applied to the submerged paddle. This can be recognised by the top arm being too far across the centre line of the boat very early on in the stroke and sometimes by a really wide paddle exit. This can be referred to as “breaking at the shoulder”. One way to try to correct this is to ask a paddler for an earlier and earlier paddle exit, minimising the time the top hand has to unload the stroke or push it wide.





Image 13



Image 14



Image 15

Images 13, 14 & 15 are examples of the arms pushing forward or across, an action paddlers should avoid.

- If the top arm is first pushed up into the air and then forced down at the end of the stroke it opens or elongates the D and flattens the exit paddle causing drag (as if you were going to do a support stroke). This then requires the paddler to lift the paddle back up to get it into the correct setup position for the next stroke. This can result in a bobbing motion of the paddler and the boat. Focus should be made on keeping the top arm in front of the face or at a constant height as this will help correct this, as will concentrating on an earlier exit.



Image 16

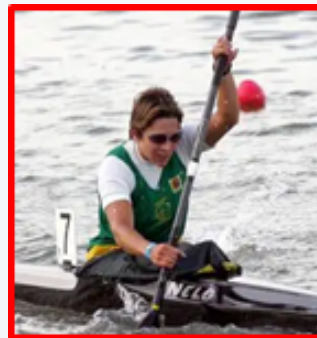


Image 17



Image 18

- If the top arm is pushed up, it lifts the submerged paddle out of the water and decreases the load (images 17 & 18). This can cause a negative paddle angle to occur much sooner, which reduces propulsion and increases drag. This can sometimes occur when a paddler pulls with a bent bottom arm (using the bicep, a smaller muscle, which collapses the D on that side) and this forces the top arm up.

Remove the emphasis on the top hand or arm driving the paddle forward or across, and instead focus on the top shoulder applying force towards the driving legs foot. This combined with a locked and stationary arm is then providing the consistent and sustainable force down the paddle shaft rather than the arm pushing across the body or pushing the arm out in front.

The aim is to maintain a positive paddle angle for as long as possible, which is controlled by the top arm. A way of assessing whether the paddle angle is positive is to see whether the bottom hand is in front of the top hand. If it is, this is a positive angle, if it's not, then the paddle angle is now negative (see images below).



Image 19 - Set Up



Image 20 - Paddle Entry

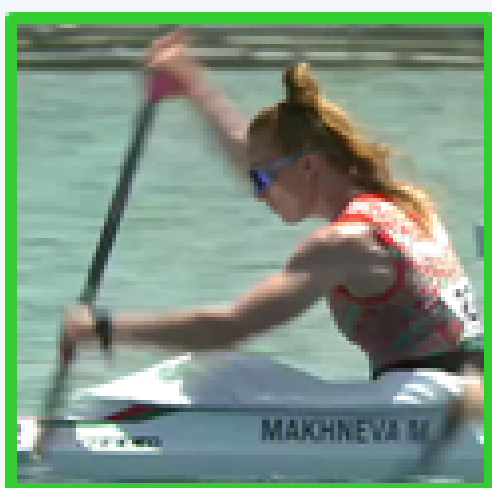


Image 21 - A positive angle



Image 22 - A negative angle (just)

The top shoulder helps apply force/pressure down the shaft (image 23). This is a diagonal force using the top shoulder and core to counteract the force from the leg drive and the upward force the water is generating on the paddle. The top arm and shoulder holds the paddle down in the water (supporting your body weight) reducing the volume of water displaced and therefore reducing boat drag.



Image 23

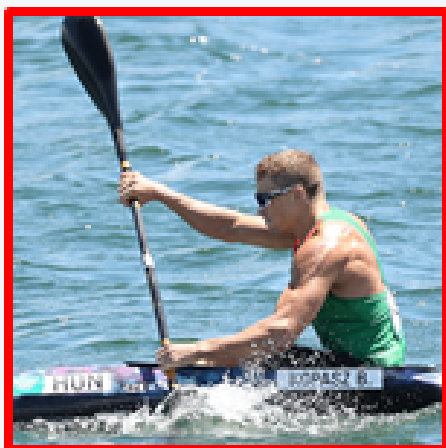


Image 24



Image 25

Image 23 shows the top shoulder resisting force & controlling the path of the bottom paddle. Image 24 however highlights the top arm pushing forward whilst the paddle is in the water. This causes a negative blade angle too soon and will add drag to the boat. Image 25 depicts the top arm pushing up. This lifts the submerged paddle out of the water too quickly, loosening the paddle's grip on the water and prevents a paddler maximising the force through the stroke.

## Leg drive

The legs provide the largest force in our paddling technique and are what drive the body past the submerged blade. The timing of this drive, in relation to the paddle entry, and body movement is key to maximise efficiency and boat speed. The leg has to go from its shortest length, to its longest length, whilst the paddle is **fully** submerged.

At this point in a paddler's development, it is assumed that the feet are in a fixed location within the boat and footrest with the heels not moving back and forwards along the bottom of the boat. The legs are stable and not flapping from side to side or falling apart, and the drive generated by the big leg muscles is driving the paddle entry side hip backwards.

With all that force being generated by the body's largest muscle groups, a paddler needs a strong connected core. This will enable their body to move at the same speed whilst their bottom arm holds the submerged/fixed blade in the water and the paddler drives with their leg, and rotates past the paddle.

### Key Coaching Tip



- The leg drive and body rotation begin as the paddle is cleanly submerged into the water
- The leg provides force throughout the drive phase, until the paddle exit
- The opposing leg is pulling on the footrest/strap/bar to help bring the opposite hip forward.
- At the exit of the paddle from the water, the opposite leg is ready to drive from its shortest and most powerful length.

### Drills to enhance leg drive:

**Drill 1:** Ask paddlers to paddle a set number of strokes reasonably hard, then repeat this exercise but with their feet hovering over/off the footrest. Ask them for feedback:

1. How stable was it?
2. How connected with the water did you feel?
3. How did the stroke feel?

Paddlers should feel that the boat is less stable, and they can't connect with the water or pull as hard and go as fast.

**Drill 2:** Ask paddlers to repeat drill one, but focus on exaggerating the leg drive to highlight how much it enables connectivity, power transfer and boat speed.

When observing, check for stroke rate changes, the distance travelled per stroke and an increasing body rotation. Conversely, you could also ask them to really kick the leg drive, i.e., a short sharp "leg punch" to see how the front of the stroke changes, this will show how leg drive positively impacts forward paddling. On land you can do similar drills with ergo's or if you have access to a slider then remove the non-driving leg from the footrest so the paddler can focus solely on the driving leg.

## Rotation

Rotation is the common term for the body movement used to propel the boat forward. After the legs it is the next most powerful driver of the boat past the submerged paddle. It is a complex chain of movements coordinated to maximise power and length of the stroke.

At this level, it's important to consider that the body rotates around, forward, and past the water side shoulder and submerged paddle. The body overtakes the paddle like a pole-vaulter.

This is contrary to what a lot of people think about the body's rotation. At this level of paddling and performance, the body and opposite shoulder pivot/rotate past the stationary water shoulder, not just around the spine (which would mean one side going forward and the other backwards) see image 26 below.

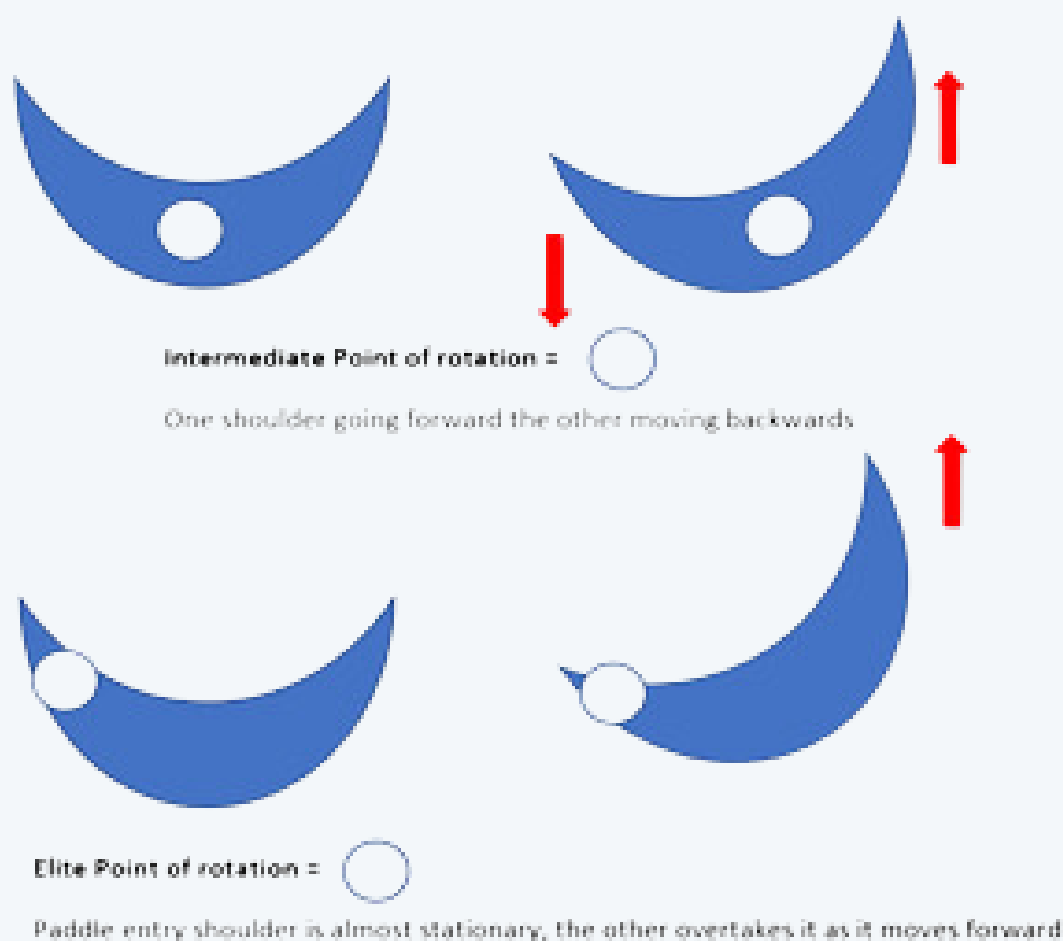


Image 26

The body rotation is driven by the leg drive which requires a paddler to have strong core musculature to connect the upper body with the driven hip. This is initiated from a strong leg drive, which importantly, requires a good connection with the footrest. Additional forces are provided from the larger back muscles, the latissimus dorsi or “lats” (images 27 and 28), and finally with the triceps (image 29).



Image 27

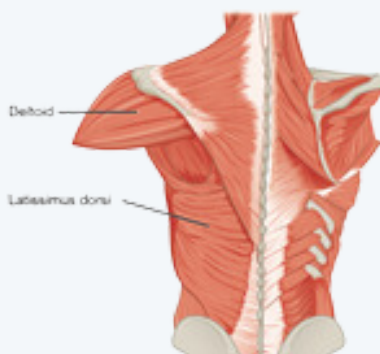


Image 28



Image 29

Ideally, the body must move as one unified unit for the greatest connectivity and power transfer. Force can be added with the arms only once the largest muscle groups have been used to accelerate the body (and boat) past the submerged paddle.

### Drills to enable rotation

**Drill 1:** Get a paddler to only use their fixed arms with a **still body** (this is easier on an ergo) and ask them to “*pull*” as hard as they can. When doing this, observe how long they last and how fast they go. Repeat the drill but slowly introduce the body rotation and the leg drive, and get feedback from the paddler on which was more productive and why?

**Drill 2:** Best suited to an ergo, ask the paddler to hold their arms out as wide as possible and with straight arms (not bending the elbows) and then paddle. This will encourage body rotation and leg drive. Slowly bring the paddler’s hands into their natural position on the paddle shaft (whilst still paddling) but maintain that sense of rotation and timing.

Good forward paddling technique involves the body overtaking the submerged paddle and therefore moving past the water side shoulder, again, think of a pole-vaulter overtaking the static pole which is firmly planted, immobile into the ground with a downwards force from the top shoulder.

Due to body rotation, the paddle will be moving away from the boat (see images 30 & 31). The paddle starts next to the boat on entry and as the body rotates, the boat moves past the paddle. The submerged paddle then moves away from the boat. This is because of the body's rotation; the top arm stays in a relatively fixed position in relation to distance from the body/shoulder (image 32) This then allows for a clean exit.

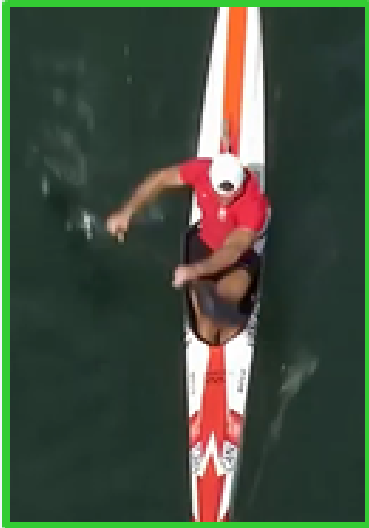


Image 30

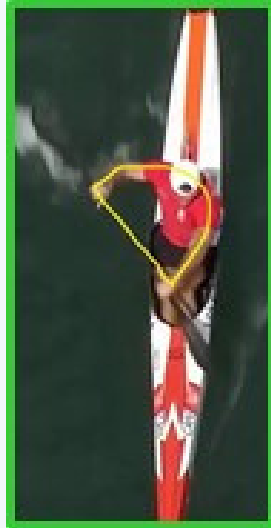


Image 31



Image 32

Images 30 & 31 show the paddle shaft is parallel to the chest and the arm has broken to lift paddle out as the body and boat accelerate past it. Image 32 shows the paddle shaft is parallel with the body and the paddle has remained parallel throughout the stroke.

## Air-Time

The definition of air time is the time taken from the end of one stroke to the beginning of the next. The stroke as a whole is a mix of water, and air time. Efficient paddlers produce their maximum force as quickly as possible in the water to minimise the drop in boat speed between strokes. This has the potential to actually increase their air time, meaning they have longer to set up for the next stroke.

This allows the paddler to maintain good technique and be more efficient, travelling further and faster with each stroke. Minimising air time can only be done during acceleration, a paddler can't keep accelerating forever, so during the maintenance phase of a race their 'air time' should not be rushed at the expense of a good set up.

Often the fear of the boat slowing causes paddlers to rush into the next stroke without a proper set up. The boat is actually travelling at its fastest at the end of the stroke and at its slowest just before the beginning of the next stroke. This is why inefficient paddlers rush to the next stroke to maintain boat speed. However, paddlers with good technique, a powerful leg drive and early exit with maximum boat speed, then have the time for a good set up ahead of the next stroke. This time also helps to maintain good technique. If a paddler rushes to the next stroke with the intent of not letting the boat slow down then this would mean constant acceleration. There always needs to be an element of glide, so don't rush!

Air-time is also when **the arms can move independently of the body** and at a faster speed at the paddle exit. At this point the body is hardly moving (momentarily) and so the arms can accelerate from exit, to air time, to set up, and therefore move independently and faster than the body. Image 33, through a slow exposure picture, shows the body is almost stationary as the blurred, faster moving arms move to the set-up position.



Image 33

**Releasing the hand grip:** *Enhanced Relaxation and Reduced Tension:* Open fingers promote a relaxed hand position, minimising tension in the hands and forearms. This leads to increased fluidity and efficiency in the stroke, resulting in less finger muscle activity and more activity in the upper arm and shoulder, potentially reducing fatigue and injury

### Key Coaching Tip

- Extend front/top arm in the air time
- The body should already be rotated forward and the leg ready to drive
- Airtime is 'reaching' forward with the top arm and back to the set up
- Athletes can use this time to **release the grip** on the paddle shaft during the maintenance phase of a race which helps prevent forearm fatigue



# BLADE

## Paddle Entry

The term fixed or locked paddle is often a misconception as the paddle does move in the water at various points. The tip moves backwards, and the neck moves forwards, but the aim is to “lock” the blade in place, to then move past it.

This can be best demonstrated by paddling over a buoy. The paddle shouldn't move backwards and hit the buoy, in fact the boat moves past it, and the paddle exits without touching the buoy and importantly highlights that the paddle isn't pulled backwards. The paddle should only move away from the boat through the body rotating. Sliding the paddle out sideways is undesirable as it is releasing load (see image 34 & 35 below).

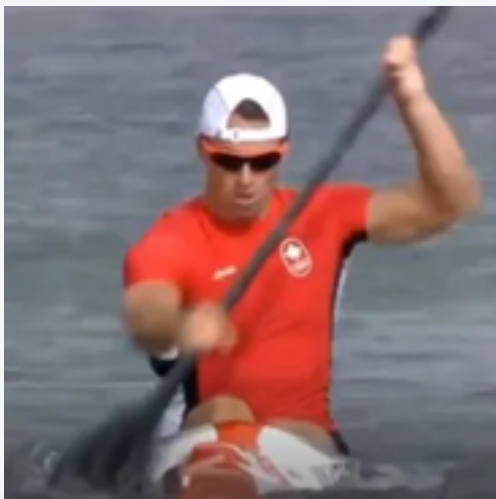


Image 34



Image 35

Images 34 & 35 shows paddle entry and exit. The paddles moves away from boat due to body rotation and is never “*pulled*” straight back

Paddlers are seeking to avoid hitting the water with their paddle travelling backwards (Image 36). Paddlers should aim for a clean paddle entry with no splash, plop or noise! Picture a diver entering the water cleanly, rather than a belly flop! (Image 37).



Image 36



Image 37

A clean entry is a quiet entry, with no holes in the water allowing for a strong “lock” or “hold” to pull/drive against. If a paddler creates a large splash, they actually create a pocket of air in the water which does not provide the required grip for the paddle to be at its most efficient.

To do this, the paddle needs to be **fully submerged**, as quickly as possible. A common mistake is for paddlers to rush this and never fully submerge their blade and therefore struggle to *hold* or *lock* with only half a blade properly connected to the water. This can be a sign of fatigue and/or their paddles being potentially too large.

As a guide, coaches should look for differences from side to side as a tell tale sign of technical issues for paddle entry. These may include:

- Top arm height, are there differences from side to side?
- Lack of force being applied down the shaft from the top shoulder
- One bottom arm pulls back with a bent elbow. This can cause different top hand heights.
- Leaning off the paddle - the boat rocks/pitches away from the entry side
- Body collapse - hip raises and shoulder folds to meet it, creating a C-shape in the spine.
- Legs flapping - can cause the boat to roll off the paddle entry.
- Splash on one side (or noisy paddle entry)

Coaches should seek to establish symmetry in paddle entry, but any issue on one side will affect the other. A coaching cue for this is listening to paddle entries. Good entries are usually quiet! Issues may be around flexibility, core strength and general strength/strength endurance.

## Sequencing - In at the feet, done by the knees, exit at the hips!

The paddle enters the water cleanly at the feet. It has finished its useful work by the knees and exits before the hips (images 38, 39 & 40).

It is worth noting that if the paddle angle has moved to a 'negative' angle, where the bottom hand is behind the top hand, this creates more drag as it pulls the boat down into the water and will slow the boat's speed. A paddler should seek to maintain the paddle at a positive angle until the knees. Positive angle can be defined as the bottom hand in front of the top hand (See images 38, 39 & 40).



Image 38



Image 39



Image 40

Image 38 - Paddle at a Positive Angle  
Image 39 - Paddle still at a positive angle  
Image 40 - Paddle now exiting and now at a negative angle. The legs are **not** moving in these pictures

“In at the feet, done by the knees, exit before the hips” may also be known as “entry/catch”, “lock”, “drive”, and “exit” phases.

The paddle needs to enter as close to the boat as possible which requires the paddle shaft when viewed from the front, to be at a more vertical angle but not fully vertical, before entry. The angle is dictated by the distance of the top hand from the head, i.e., if a paddler's arm is at 90° and the top hand is not above the face (image 43) then that's a good entry angle. If the top hand is closer in, or further away, the paddle entry angle changes and this may cause issues, see images 41 and 42 below.



Image 41



Image 42



Image 43

Image 41 - The top hand is too close to the head. While it brings the paddle very close to the boat, it is a very weak top arm position.

Image 42, the top hand is too wide and this can accelerate the paddle to a negative angle too soon. Most people aren't strong enough to resist the forces out here.

Image 43 A good starting place to enable a positive angle and to effectively place load down the shaft.

The paddle entry or 'catch' is made with two hands through downward pressure along the paddle shaft. The top hand remains in a similar position relative to the shoulder and head, and does not push forward, up, or across the body. The angle of the fully submerged paddle is still positive, i.e., the top hand is behind the bottom hand from a side-on view (image 44 & 45)



Image 44



Image 45

Image 44: No splash on entry, top hand relaxed, bottom arm straight, top hand head/face height with the elbow below the shoulder.

Image 45: Look how cleanly the paddle has entered the water despite all the effort going in

## **Paddle Entry Drills**

As noted above, the paddle must enter the water as cleanly as possible. As the arm is attached to the shoulder, it falls in an arc from the set-up height to the paddle entry, however it is very important to enter the blade as far forward as possible with a positive angle, and square (90 degrees) to the centre line of the boat for maximum propulsion and efficiency.

The catch, entry or lock, refers to the front of the stroke as the paddle enters the water. Both arms apply force down the paddle shaft, recognising that the bottom arm is not pulling backwards, but down, and when done well, the blade grips the water. The top hand is there to guide the paddle into the water, without pushing forward or across the body: it's also applying diagonal downwards force without providing diagonal downwards movement. The paddle entering the water must not be pulled backwards in the air or hit the water travelling backwards, and it should be submerged fully before force is applied.

## **Drills:**

- Paddle-pause - A simple drill where a paddler makes a stroke and pauses, allowing the boat to glide for a few seconds before taking another stroke. This enables a paddler to practice their paddle entry and drive between each side. Coaches should seek to place emphasis on a clean entry with no splash and with the paddle fully submerged as quickly as possible. For paddlers struggling to submerge the paddle fully, a simple cue to consider is to ask paddlers to try to get their entry side little finger wet.
- Silent paddling - Adding load until the paddle entry gets noisy, and then decreasing the load until the paddle entry is quiet, with the aim of adding more and more load, but quietly!
- 20 strokes build up from light to hard and counting how many good paddle entries there were and why.

## Paddle Exit

The paddle exit is very important as when it is done well, it doesn't slow the speed of the boat and enables it to glide nicely before the next stroke. If done poorly, it can act as a brake to the boat's acceleration.

A poor paddle exit can lead to technique issues with the set up for the next stroke. It is not uncommon to see asymmetric paddle exits. Coaches can see this best from behind the paddler on the water. Despite most images being taken from the side of paddlers, the paddle exit is in front of the hips, because the body is rotated and parallel with the paddle shaft (images 46 and 47). Still images from the side can give the impression that a paddler pulls behind the hips, but this is not true if the body is rotating correctly.



Image 46



Image 47

### Paddle Exit Key Points

- The paddle exits at, or ideally before the hips (when seen from the side)
- The bottom arm elbow points downwards and doesn't lift the paddle out
- The top hand elbow stays below the top wrist and stays bent in front of the body whilst the paddle is submerged.
- The bottom elbow never goes behind the body (due to the hip rotation image 49)
- The exit is led by the bottom hand, not by the shoulder, elbow or wrist.
- The bottom **hand** lifts the paddle on exit with minimal water lifted (not the elbow, shoulder or floppy wrist).
- The paddle exits before the hips, the elbow "*breaks*", and the back of the hand lifts the paddle (image 48)



Image 48



Image 49

48: The paddle exits before the hips, helped by the hips being driven backwards

49: paddle shaft is parallel with body, paddle has exited water before the hip. Bottom hand is **never** brought back behind the body, elbows pointing down.

### **Drills to consider for Paddle Exit:**

Paddle exit is very important as performance can be negatively impacted by a paddler slowing the boat down with a poor exit. Paddlers should try not to rush exiting the water with the aim of going straight into the next paddle entry, **without** completing the paddle set up in a good strong position, i.e., take the time to set up a good next stroke rather than rush to a poor one!

- Emphasising the ‘feet to knees’ part of the stroke or the ‘catch and drive’ with the aim of taking the paddle out earlier, and earlier. This can help avoid bringing the blade too far back and helps paddlers explore finding the correct exit point. Consider use of terms such as “long strokes” this may lead a paddler to bring the paddle too far backwards and make the paddle exit awkward.
- Exiting the paddle out before the hips, emphasising the hand leading up first and not the elbow or shoulder. Paddlers should be aiming for their hand to be in line with the arm, and raise as one. Coaches should watch for bent down wrists that flick from above to below the paddle shaft. This would be considered poor execution.
- Tapping the ear/head with the exit hand after the paddler has exited the paddle from the water. Complete this 10x on each side for three sets. This can help a paddler move the top hand back out from their head/ear to create a strong setup position ready to go again. Simply, this drill would be ‘paddle exit, head tap, paddle set-up, paddle entry’.

## Technique in practice - Things to consider with technique coaching

Coordination needs to be practised at race speed. Practising at a capped paddle speed, and/or at high resistances, low speed, when training with bungees is okay, but paddlers need to also train the body and brain at different speeds and differing loads.

Practicing over speed work, such as K2s or K4s, helps develop coordination at higher speeds. Some paddlers may find it hard to paddle well with little to no load, or at slow speeds. At times, too much of this type of training (high load but low boat speed) can make it harder to coordinate at higher speeds. Coaches should be considering this in their programming.

It's important to note that paddlers need to practice technique under fatigue. This doesn't mean simply after a long paddle, but creating situations where a paddler has to produce a maximum effort under strain whilst maintaining good technique. In these instances, coaches should recognise that backing off the effort when technique starts to fail is not a negative. Paddlers should be aiming to execute good technique at higher speeds and this may place them under physical and mental strain. In these instances, take a break, recompose and get the paddler to try again.

Initially coaches and paddlers can count how many good strokes the paddler has had. As the paddler improves, they can count the not so good ones. This encourages paddlers to recognise good technique and be aware of when it is, and isn't happening, and why. Recognising bad strokes is just as important as recognising good strokes and this may take time for a paddler to recognise. Ensure to encourage paddlers to articulate why a stroke is either good or bad and ask them to explain what they are feeling. As already stated, paddler's need to practise good technique under mental as well as physical load, this can be hard to do in training as replicating race day pressure isn't as easy. One way of doing this is to run sessions with staggered starts, using equal speed paddlers. The aim is to get a paddler to focus on paddling well in their own space, without being influenced by others or being drawn into a race!

Another drill is to ask paddlers to work in pairs, going head-to-head but not getting close to each other or ride the wash. This enables them to focus on themselves whilst training an awareness of where the opposition is without focusing on them, a crucial skill for any racer.

**Top Tip! Race your boat, it's the only one you have any control over!**



# SUMMARY



Coaching forward paddling technique is incredibly rewarding, hugely challenging and at times, frustrating for all involved!

Coaches have to be able to spot the key issues, separate cause and effect and then decide on the best course of action to take to help improve the paddler. All the while, paddlers are changing by getting fitter, faster and stronger, as well as growing and changing their equipment. Therefore, coaching paddling technique is an ongoing cycle of adjustments and refinements!

Be patient, you can't fix all the issues at once!

Be aware that fixing one issue might impact or introduce others and therefore a paddler may often go slower before they can go quicker. Naturally, paddlers will want to go faster and technique may not be 'their' top priority, so a balance in delivery is often required to maintain engagement, whilst also facilitating progression.

This guide has attempted to explain the concepts of Body and Blade and has been designed to give a coach information, ideas and tips to support their delivery, while hopefully becoming a resource to refer back to. It is worth noting that everybody learns in different ways and at differing speeds.

Coaches should consider the learning styles of the paddlers they are working with and consider the mediums they use when coaching. A paddler may need to see themselves on video to compare their mental image with reality. A paddler may need to be physically moved into the correct position to help their understanding, on an ergo or slider, or even on the bank, and still, it will take plenty of repeated practice to engrain and refine good technique.

Lastly, it is important to recognise that each paddler is unique and will progress at their own pace.