



PADDLER

TECHNIQUE DRILLS

FLATWATER

OCEAN



TECHNIQUE DRILLS

This resource has been developed to give coaches and athletes information and ideas to around how they can help develop their paddling technique. It is important to understand the physics, individual differences (biomechanics) and how they can affect technique.

These drills should be used to help develop a further understanding of the physics and biomechanics behind technique. The drills outlined in this document are also designed to improve each part of the paddle cycle through the development of a more efficient stroke.

It is important to note that most of these drills are exaggerating a specific aspect of paddling technique in order to help the athlete learn the most efficient paddling technique possible.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- One handed exit - The back hand leads the exit pivoting around the elbow
- In the set up position the back hand elbow is about 90 degrees and the back hand is held around head height
- The scapular is set - Shoulder blades are back and down with elbows pointing towards the water
- Lead the movement through the hips and legs
- Sitting upright, slightly in front of vertical and with a long spine
- Slow, controlled, purposeful movements

Common errors

- The paddle exiting behind the hip
- Athletes loose balance and either torso compress (leaning to the side/crunching body to the side or forward) or boat roll
- The back hand too low or too high
- Weight is shifting away from the pulling stroke
- Athletes rushing the drills without control
- Excessive body movements

Each drill can also be modified or progressed for specific needs and can be incorporated into the athletes training in two ways:

Daily warmup

Ideally spend at least one minute on each of the selected drills. Spending about 10 minutes at the start of the session and 10 minutes at the end of the session is a great way to incorporate technical development into an athletes training program.

Designated session

Paddling drills can make up a session where the sole focus is working through the drills that need to be done to improve the paddlers technique and efficiency.

Eyes closed

All of the drills can be performed with eyes closed as well as normal paddling. This helps athletes develop more 'feel' for the strokes and the water rather than what they see in their strokes. This is particularly good in crew boats where you can alternate the crew members who have their eyes closed ie 1st and 3rd seats have eyes closed/2nd and 4th seats have eyes open.

Slow mo drill

This drill allows the athletes to practice their stability and technical skills at a slower pace to highlight any inconsistencies in their technique.

Try paddling at a stroke rate of 24 double strokes per minute or less while maintaining good technique and a stable boat. It is important to ensure that the exit is still swift and the blade is not exiting the water past the hip. The time in the air should be longer than the time that the blade is in the water.

Setup Drill

3 Stroke Pause Drill

The purpose of this drill is to help establish the correct set up position. This is the most important base line drill and it forms the basis for a large portion of the more complex drills.

The drill starts with the paddler performing 3 strokes then pausing for 3 seconds in the set up position.

Key coaching points

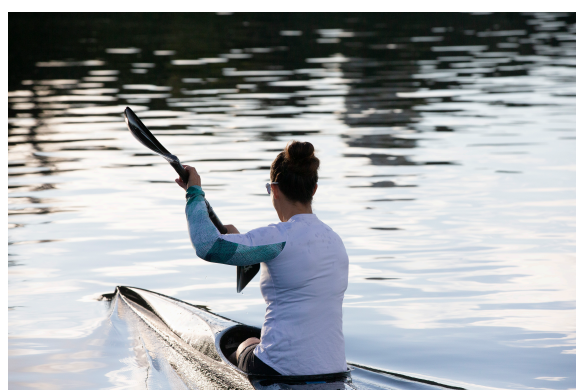
- The tip of the front blade is just above the water with the paddle angle between 45-50 degrees.
- The front hand is directly in front of the shoulder and at shoulder height. This is particularly important as this position puts the shoulder in the most stable position and can help reduce the risk of shoulder injury.
- The back hand elbow is at 90 degrees and the hand is around head height.
- Set the scapular - Shoulder blades are back and down with elbows pointing towards the water
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee.
- Maintain connection with your footrest and seat

Common errors

- Athletes loose balance or their torso compresses (leaning to the side/ crunching their body to the side or forward)
- The front hand is above their shoulder
- The back hand too low or too high
- The paddle is horizontal

Progression

If the paddler struggles to hold position reduce the pause time to 1-2 seconds. When athletes can perform the drill with good technique they can progress to holding the drill 3/5/7 seconds.



Setup Drill

Ear Touch

The purpose of this drill is to focus on establishing the correct set up position and the correct exit. This drill also develops an awareness of the back hand shoulder positioning and the angle of the paddle blade at the catch.

The paddler starts in the set up position. While holding the paddle the backhand touches the ear and return to the set up position. Perform the drill every three strokes.

Key coaching points

- The tip of the front blade is just above the water with the paddle angle between 45-50 degrees.
- The front hand is directly in front of the shoulder at shoulder height
- The back hand elbow is at 90 degrees and the hand is around head height.
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat

Common errors

- The elbow leading the exit
- The paddle exiting behind hip
- Moving the head to the hand
- Athletes loose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)



Setup Drill

Front Hand Touch Boat

The purpose of this drill is to help the paddler develop establish the correct placement, angle and the entry of the paddle blade. This drill also develops the control of the paddle angle by only using the backhand.

The paddler starts this drill in the set up position, taking their front hand off the paddle, touching the front of the kayak and then returning their hand back to the paddle shaft. Perform this drill every three strokes

Key coaching points

- Maintain the paddle angle with the backhand alone
- The tip of the front blade is just above the water with the paddle angle between 45-50 degrees
- The back hand elbow is at 90 degrees and the hand is around head height.
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat

Common errors

- Back elbow must not move above 90 degrees of angle
- Athletes loose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)
- The paddle is horizontal

Progression

Try touch the water with the front hand instead of touching the boat.



Setup Drill

Cross Over Drill

The purpose of this drill is to reinforce the set up position.

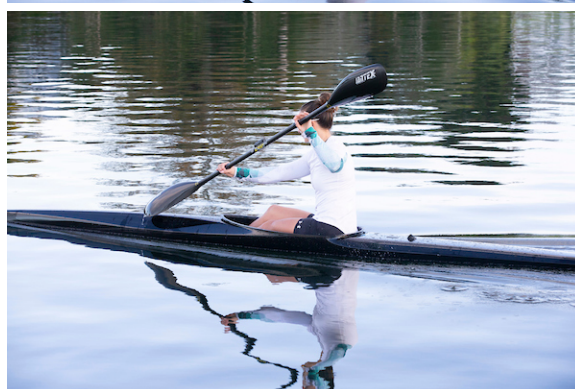
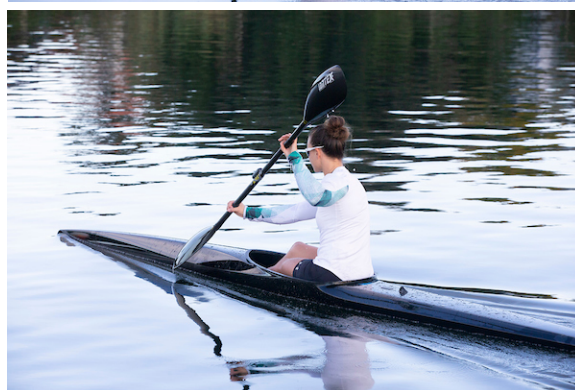
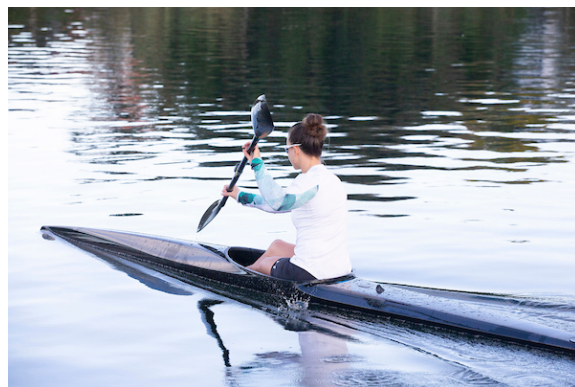
The paddler starts in the setup position and rotates their abdominals to touch the tip of the blade into the water on the opposite side of the boat. The paddle blade returns to the set up position before performing the stroke. Perform this drill every three strokes.

Key coaching points

- The back hand remains in the same position throughout the drill
- Only move the front hand
- The front hand is directly in front of the shoulder at shoulder height
- The back hand elbow is at 90 degrees and the hand is around head height.
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat

Common errors

- Moving their back hand throughout the drill
- Loosing connection with footrest and losing leg drive
- Athletes loose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)
- The front hand is above their shoulder
- The back hand too low or too high
- The paddle is horizontal



Force Application Drill

One Sided Strokes

The purpose of this drill is to emphasize the catch, paddle angle and orientation. This drill also helps develop feeling and understanding the two handed catch.

The paddler starts by performing strokes on the same side directly after each other. The paddler glides the back hand blade along the water to the setup position.

This drill can be performed on the same side or the paddler can alternate sides.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- Feel the connection and timing between the catch and the leg drive (Connection between hand and driving foot)
- Shift your weight towards the pulling side with each stroke
- Lead the movement through the hips and legs
- Recoil slowly with the hip (Controlled movement and be patient)
- Elbow angles change minimally (Don't push and pull)

Common errors

- Paddlers push with their back hand
- Paddles don't use their hips to lead the movement
- Paddlers pulling with their bottom hand
- Athletes loose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)

Progression

A variation to this drill is to move the paddle blade from the exit to the setup position without gliding it along the water.



Exit Drill

See - Saw

The purpose of this drill is to help the paddler develop the correct paddle angle at the exit and in the set up position. This drill also develops the control of the paddle angle by only using the back hand.

Every 3 strokes, the paddler pauses in the set up position with the paddle shaft between 45-50 degrees. Hold the front hand still while, the back hand lowers to tap the blade on the water before returning to the setup position.

Key coaching points

- Start in the correct set up position
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat
- One handed exit - The back hand leads the exit pivoting around the elbow
- The front hand in the set up position remains at eye level during this movement.
- The tip of the blade is just above in the water with the paddle angle at a 60 degrees from a front on view
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water

Common errors

- Paddlers move their front hand
- The front hand is higher than their shoulder
- Athletes lose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)

Progression

A variation to this drill is the paddler lets go of their back hand in the set up position to touch the water with their hand.



Rotational Drills

5 Strokes with 4 Twists

The purpose of this drill is to develop an awareness in how the hips lead the movement. Hips initiate the movement driving the body, the body drives the shoulders, the shoulders drive the hands and the hands drive the paddle.

Every 5 strokes, remove the paddle from the water and hold in a low, horizontal position, parallel to the chest. Use the hips to complete 4 strokes.

Key coaching points

- Lead the movement through the hips and legs.
- Keep the paddle shaft horizontal and parallel with the chest
- Keep a good connection with your footrest and seat
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water

Common errors

- Paddlers rush the drill
- Paddlers disconnect their hips and arms.
- Paddlers don't leg drive
- Athletes loose balance or their torso compresses (leaning to the side/crunching their body to the side or forward)

Progression

To make this drill more challenging try repeating the rotations by increasing the height of the paddle.



Rotational Drills

The Robot

The Purpose of the Robot drill is to go through each part of the stroke as slowly as possible but still with maximum power.

Start by pausing slightly before the catch/after the exit. This allows the kayak to run/glide between strokes.

Key coaching points

- Lead the movement through the hips and legs
- Slow, controlled, purposeful movements
- Keep a good connection with your footrest and seat
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat

Common errors

- Weight is shifting away from the pulling stroke
- Athletes rushing the drills without control
- Excessive body movements
- Paddlers lose balance and or their torso compresses (leaning to the side/crunching their body to the side or forward)





Finish Drill

The Lunge

The purpose of the lunge drill is to rapidly speed boat up or shoot it forward by using the force from the leg drive. This is particularly important the finish of the race.

The movement is initiated with the leg drive but the athletes posture also changes as they lean backwards to push their hips forward.

Key coaching points

- Lead the movement through the hips and legs
- Allow your posture to lean backwards from the hips
- Keep a good connection with your footrest and seat

Common errors

- Paddlers rush the drill
- Poor timing between the catch and leg/hip drive
- Paddlers don't use their hips legs to drive the movement
- Athletes loose balance and cause the boat to roll
- Paddlers loose balance and or their torso compresses (leaning to the side/crunching their body to the side or forward)





Start Drill

Start Position Drill

This drill will help in developing the start position and ability to transfer force into the first few strokes. Start by placing the paddle into the start position, making sure the blade is buried and square to the boat.

Start by sitting in your boat and holding the start position.

Key coaching points

- The paddle blade is fully submerged in the water with the paddle angle at a 60 degrees
- The front hand is directly in front of the shoulder
- The back hand elbow is at 90 degrees and the hand is around head height.
- The hips are rotated
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat
- Sit upright, slightly in front of vertical and with a long spine
- Engage your lower abdominals and bring your centre of mass lower
- Set the scapular - Both shoulder blades are back and down with elbows pointing towards the water
- Keep your neck and head relaxed, stationary and in a neutral position

Adaptations

- Line up with a partner and challenge who can hold the same position the longest.
- Hold the position in challenging conditions, wind, choppy waves, someone splashing them
- Progress to holding the position with no paddle
- To make this more challenging try imaginary paddling. Remember to have slow, controlled, purposeful movements



Start Drill

Rock the Boat

This drill is designed develop control and grip at the start stroke.

Start in the Start Position Hold and slowly perform the first part of the stroke then return the blade back to the starting position. Keep the paddle blade in the submerged throughout the drill.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- Feel the connection and timing between the catch and the leg drive (Connection between hand and driving foot)
- Feel the pressure and focus on holding the top and bottom hand in the set up position while they resist the backwards movement of the kayak.
- Lead the movement through the hips and legs
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat
- Sit upright, slightly in front of vertical and with a long spine



Start Drill

Reverse to Start Hold

This drill is an adaptation from the Start Hold Position.

Start by taking three slow strokes backwards and then perform the start position hold. Maintain a two handed catch with pressure through the shaft while resisting against the water as the boat moves backwards.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- Feel the connection and timing between the catch and the leg (Connection between hand and driving foot)
- Front hand directly in front of the shoulder
- The back hand elbow is at 90 degrees and the hand is around head height.
- The front hand is directly in front of the shoulder
- The back hand elbow is at 90 degrees and is around head height
- Set the scapular - Shoulder blades are back and down with elbows pointing towards the water
- The hips are rotated
- Ensure the driving leg stays down while pulling up with the opposite knee. Maintain connection with your footrest and seat
- Sit upright, slightly in front of vertical and with a long spine
- Engage your lower abdominals and bring your centre of mass lower



Start Drill

Second Stroke Drill

This drill is designed to help develop pressure and connection at the start of the second stroke.

Start with the paddle 20cm out of the water. Perform 1-2 strokes while focusing on drive through the stroke. Focus on holding posture with elbows down and a connection throughout the whole body.

This drill can be performed while the kayak is moving or a for a more advanced paddler try performing the drill from a stationery position.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- Feel the connection and timing between the catch and the leg drive (Connection between hand and driving foot)
- Lead the movement through the hips.



Start Drill

2 Back 2 Forward

This drill is designed to help develop pressure and connection at the start of the stroke.

Start by paddling two strokes backwards moving directly into two forward strokes.

Key coaching points

- Two handed catch – Downward pressure through the shaft
- Feel the connection and timing between the catch and the leg drive (Connection between hand and driving foot)
- Lead the movement through the hips.





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