

## The Stroke and Your Body

- 4 parts to the stroke (1. glide/recovery, 2. catch, 3. power/pull, 4. exit)
  - o Part 1: the Glide/Recovery
    - This is the beginning of your stroke
    - Breathe in
    - A time to relax
    - Get your body aligned for a proper catch
    - This phase ends when your body is fully extended forward and ready to set your blade in the water
    - Body and its actions
      - Neck- rotation
      - Shoulders- extension
      - Arms- extension
      - Upper back- extension & rotation
      - Lower Back- extension & rotation
      - Hips- extension
      - Legs- flexion
  - o Part 2: The Catch
    - The set-up for your pull
    - The blade should be buried completely in the water with a vertical shaft
    - Avoid plopping or cavitation of the blade (Quiet blades)
    - This phase ends when you completely submerge your blade
      - This should feel like you planted your blade into mud
    - Body and its actions
      - Neck- rotation
      - Shoulders- flexion
      - Arms- flexion
      - Upper back- rotation
      - Lower back- rotation
      - Hips- flexion
      - Legs extension
  - o Part 3: Power/Pull
    - Think large muscle groups (don't bend your arms)
    - Push with legs, pull with back, stabilize vertical shaft with shoulders and arms
    - Exhale
    - Lots of rotation for effortless power
    - Keep arms straight
    - Pull yourself to the blade, **NOT** the blade to you
    - This phase ends once your front leg is straight and bottom hand reaches your knee
    - Body and its actions
      - Neck- rotation
      - Shoulders- flexion
      - Arms- Flexion (contraction)
      - Upper back- rotation and flexion

- Lower back- rotation
- Hips- rotation and flexion
- Legs- extension (contraction)
- Part 4: The Exit
  - Begin your exit when your bottom hand reaches your knee
  - Release all pressure from your blade
  - Gently rotate shoulders and forearms and pull blade from water (the canoe speed should do most of this for you)
  - Top arm should not drop below your shoulder
  - Bottom hand should not raise far above top of gunnel
  - This phase ends when your blade has completely been removed from the water and you begin to move it forward
  - Body and it actions
    - Shoulders- extension
    - Arms- extension, rotation, and flexion
    - Upper back- extension and rotation
    - Lower back- extension and rotation
    - Hips- extension and rotation
    - Legs- flexion
- Body's Kinetics
  - Top arm and shoulder
    - Remain as straight as possible
      - Dropping the elbow will put too much tension on triceps, rear deltoids, and teres major and minor
    - Keep hand between eyes and shoulders at all times
      - Never enter water with hand above eye level (this will help prevent shoulder injuries)
    - Use this arm to stabilize the top of your paddle
      - Blade should remain vertical throughout the pull
    - Release pressure from shoulder and arm once you feel a catch
  - Bottom arm and shoulder
    - Keep as straight as possible
    - Extend shoulder during exit and through the recovery
    - contract throughout the catch and pull
    - once a catch is felt, keep your hand level, and pull straight back
    - once hand reaches knee, your stroke is over and being your exit
    - you may bend arm at the elbow for the exit only (no pressure should be applied)
  - Torso
    - Along with your legs, this is your power source
    - In a constant rotation
      - Rotating and extending forward with bottom arm during recovery, catch, and exit
      - Rotating and contracting for the pull

- Maintain a small lean forward during the whole stroke process
  - Try to avoid any bending or arching of the back
- Hips
  - The hips allow you to transfer power from your legs to your back
  - In constant motion
    - Extending and rotating during recovery and exit
    - Contracting during catch
    - Contracting and rotating during the pull
  - Hips mirror bottom shoulder
- Legs
  - Front leg is always on the same side as you are paddling on
  - Back leg used for balance
  - Front leg used for power
    - During the exit and recovery the leg will flex (bend) at the knee
    - Then extend at the knee after the catch and during power phases
  - the key to your power and pull
  - once front leg is straight, your pull is over and begin your exit

Muscle Group	Action	Glide	Catch	Pull	Exit
Neck	Extension				
	Rotation	R→	R→	←R	
	Flexion				
Shoulders	Extension	E			E
	Rotation				
	Flexion		F*	F*	
Arms	Extension	E			E
	Rotation				R
	Flexion		F*	F*	F
Upper Back	Extension	E			E
	Rotation	R→	R→	←R*	R→
	Flexion			F*	
Lower Back	Extension	E			E
	Rotation	R→	R→	←R*	R→
	Flexion			F*	
Hips	Extension	E		E*	E
	Rotation	R→	R→	←R*	R→
	Flexion			F	
Legs	Extension		E*	E*	
	Rotation				
	Flexion	F	F		F

(\* = Muscle Contraction)  
 (→ = Forward Rotation)  
 (← = Backward Rotation)

(Flexion is bending of a joint)  
 (Extension is straightening of a joint)

## The Seats

- The Team in general
  - o 6 seats in the Va'a, each with its own responsibilities (seat 1 in front of canoe, and seat 6 in the back of the canoe)
  - o Paddlers stagger the sides they are paddling on (1,3,5 on the right, and 2,4,6 on the left)
  - o A change of sides will be called every 13-18 strokes
  - o Timing is always going to be number one focus (in and out of the water together)
  - o Proper technique is second priority (most power comes from simply having the correct stroke)
  - o Power last
    - With a proper recovery and catch, the power should be effortless
  - o Always stay centered in the canoe
    - The canoes do flip over, and it doesn't take much
  - o Stabilize body and prevent bouncing your body during the stroke
  
- Seat 1 (**Rhythm**)
  - o This is a rhythm seat
  - o You must be able to set the stroke rate to the crew (feel the canoe)
  - o Your stroke rate increases with outrigger speed
    - Increasing your rate before the canoe picks up speed is a waste of your energy and won't make you go any faster
    - Slowly increase your stroke rate as you feel the canoe accelerate
  - o This is not a power seat
  
- Seat 2 (**Timing**)
  - o This is the timing seat
    - You must be able to keep rhythm with the seat 1 while paddling on the opposite side and having no blade in front of you to follow
    - Avoid rushing the seat 1 (entering water in advance)
    - Feel the canoe
  - o Often given responsibility of calling changes
    - Count strokes in your head, and call hut ho every 13 to 18 strokes
      - This lets your team know to switch sides
  - o Responsible for coaching seat 1 throughout races when they are getting tired
  - o Often times a person who can follow odd looking strokes without it effecting their own
  
- Seat 3 (**Connection**)
  - o This seat is the connection between the rhythm seats, and the power seats
  - o Now that you have two people in front of you it is much easier to keep timing
    - This will allow you to focus more on your power and less on rhythm
      - Rhythm is still very important as should not be disregarded
  - o Along with 4 & 5, you are part of the engine room in your canoe
    - Keep extra application on completely burying the blade while fully reaching forward and using your legs and back to pull the canoe forward
  - o Sometimes responsible for calling changes
    - Count stroke in your head, call hut ho every 13-18 strokes
      - This will let the team know when to switch sides

- Seat 4 (**Power**)
  - o You are the power seat
    - Pull as hard as you can every stroke
      - Very important to completely bury blade and set up for an effective stroke
  - o Must still keep timing
    - This is always a priority
  - o Things to elude in this seat (common problems)
    - Stay centered in the canoe
      - Because you are pulling as hard as you can, the person in this seat frequently leans over the gunnel to get more leverage on their paddle
        - o This can flip the canoe over
    - Do not pound the water
      - Commonly there is a problem of pulling before the catch occurs in this seat
        - o Once again from trying to pull as much water as possible
        - o Keep top hand below eye level at all times
        - o Be sure to plant blade before pulling back
    - Only pull to knee
      - Don't pull blade past your knee
        - o As you pull beyond your knee the angle between the blade and the canoe changes
          - This will result in you pulling the canoe down (creating drag, and slowing you down), not forward (helping to move the canoe faster)
  - o A powerful stroke will occur naturally with proper stroke technique
- Seat 5 (**Balance**)
  - o A skilled seat
    - You are the most ama sensitive seat in the canoe
      - Stay centered in the canoe
        - o Leaning to the ama will dig it into the water, creating drag and slowing the canoe down
        - o Leaning away from the ama is most likely to flip the canoe over
    - Pounding and pulling back too far will throw the back of the canoe up and down, making it more difficult for your seat 6 to steer
      - Keep body as stable as possible
        - o Your stroke should be very fluid and rhythmic
    - You are also part of the engine room
      - This means you are also a power seat in the canoe
        - o Same responsibilities as seats 3 & 4
    - Assistant steersman as well
      - In specific situations you may be called upon to take over or help your seat 6 with their job
  - o You must be a very well rounded paddler with the skillset of all the seats combined

- Seat 6 (**Steersman**)
  - o Responsible for the crew
    - Know everyone's seat responsibilities in the canoe, and help keep them motivated
  - o Must steer the canoe
    - Keep canoe straight and upright using a combination of poking, drawing, posting, and paddling
      - Poking- Holding the paddle vertical against the side of the canoe
        - o This will cause minor drag, that will turn the canoe in a chosen direction
          - Poke right = turn right
          - Poke left = turn left
      - Drawing- paddling at 30-90 degree angles
        - o This pulls water under the canoe, causing canoe to turn in the opposite direction
          - Draw right = turn left
          - Draw left = turn right
      - Posting- holding paddle out to the side of the canoe
        - o Post on opposite side you wish to turn
          - Post right = turn left
          - Post left = turn right
        - o Often a prelude to drawing
      - Paddling- taking regular strokes on a chosen side of the canoe
        - o This can influence which way the canoe will turn
          - Paddle right = turn left
          - Paddle left = turn right
        - o Paddling contributes power to the canoe more than any other method of steering
    - You should try paddling as much as possible in this seat
      - This is so you do not slow the canoe down by contributing extra weight in the canoe

Paddle Videos and info

Outrigger Warrior

<http://www.outriggerwarrior.com/>

Jim and John Foti

<https://www.youtube.com/watch?v=o2KmwUk14eI>

Danny Ching Johnny Puakea

<https://www.youtube.com/watch?v=Ne1PFWSey3w>

<https://www.youtube.com/watch?v=e3p7C5vAhFM>

<https://www.youtube.com/watch?v=muMz1DfU3iM>

[https://www.youtube.com/watch?v=byKfA\\_sQjK4&index=4&list=PL07C94791904130C9](https://www.youtube.com/watch?v=byKfA_sQjK4&index=4&list=PL07C94791904130C9)

[https://www.youtube.com/watch?v=EufMxhGfP\\_A](https://www.youtube.com/watch?v=EufMxhGfP_A)

World Champion

<https://www.youtube.com/watch?v=AmhW62DoAt0>