

## Goals

- Understand and execute the rowing stroke with proper mechanics in order to emphasize efficiency and minimize potential for injury
  - Understand proper setup on the C2 including foot placement and damper setting
  - Learn drills and cues to practice and teach proper technique
  - Establish a baseline split to use for training purposes
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## Technique/Sequence

- Rowing consists of 2 main phases: the DRIVE and the RECOVERY
- The **Drive** is the work portion of the stroke
- The **Recovery** is the rest portion
- The **Stroke Rate** is how many strokes you take per minute (s/m)
  - 22-26 is good for more endurance or technique focused workouts
  - 28-32+ is good for sprints
  - On the performance monitor this number is updated every stroke
- The **Split** is how long (in minutes and seconds) it will take you to row 500m
  - i.e. 2:00 means it will take you 2 minutes to go 500m
  - On the performance monitor this number is updated every stroke



- The Catch
  - Shins vertical
  - Relaxed Grip (Flat wrists)
  - Hands Shoulder height and shoulder width
  - Straight Arms
  - Relaxed shoulders
  - Tight core
  - Body Angle (1pm) - Sitting up tall
  - Neutral Gaze
- The Drive
  - Legs -> Body -> Arms
- The Finish
  - Legs extended
  - Handle drawn to body (below bra strap) and held lightly
  - Body position 11:00
  - Neck & Shoulders relaxed
  - Head Neutral
  - Elbows drawn past body

- Flat wrists
  - The Recovery
    - Arms -> Body -> Legs (Reverse of the Drive)
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## Rower Setup

- Drag factor between 110-115 (women) 115-120 (men)
  - Usually this is a damper setting of around 4.5
  - Place feet high/low enough that shins are vertical at the catch - avoid over-compressing and under-compressing
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## Drills

- **Pick Drill**
  - WHAT IS IT?? Drill that Isolates the different parts of the recovery and drive sequence and helps you feel how they're supposed to flow together.
  - Do about 20 strokes of each section
  - <https://www.youtube.com/watch?v=gQOC9bbFY6A>
  - Arms only - Points of performance
    - body stable
    - legs extended
    - arms extend fully, then draw back until hands come w/in 1 inch of body
    - return straight back out
  - Arms and Body - Points of performance
    - body hinges @ hips only after arms have straightened
    - change directions starting w/ body, then pull w/ arms
  - ½ Slide - Points of performance
    - arms extended, body @ 1, bend knees just a few inches
    - drive through heels to extend legs, lean body, pull hands back
  - Full Slide - Points of performance
    - shins vertical @ catch
    - body stable
    - sequence - straighten the legs, then lean body from 1 to 11, then pull handle to body w/ arms
    - reverse - extend arms, lean body, bend knees
  - Blend into a smooth continuous motion :)
  - Ratio 1:2 drive:recovery (practice counting out loud to help)
- **Pause Drill**
  - Pause @ **Finish** to work on over-gripping and chicken wings/finish position



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- Pause @ **arms away (body still back @ 11)** to work on proper sequencing of arms/torso movement pattern



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- <https://www.youtube.com/watch?v=EDmP37nyzj4>
- Pause @ **arms and body over (legs still straight)** to work on not bending the knees too early on recovery



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- [https://www.youtube.com/watch?v=ZGcPk6aA\\_qo](https://www.youtube.com/watch?v=ZGcPk6aA_qo)
- **Legs Only Drill**
  - keep body and arms still and just row w/ the legs
  - helps correct shooting the butt and leaning/initiating w/ the shoulders/back.
  - <https://www.youtube.com/watch?v=uLcS7qmy2EY#action=share>
- **Feet Out Rowing**
  - place feet on top of the straps and row
  - focus on keeping constant pressure on the foot board through both toes and heels

## Example Workout Using Base Split

- Jane and Joe do a 6K @ 26 spm
- Jane's average split is 2:15 - this is now her Base split
- Joe's average split is 1:55 - this is now his Base split

**Sample WOD Using Base Split:**  
**2 x 10 min pieces, 2 min rest**

Each piece consists of

4 min @ 18s/m - Base + 10-15 (Jane: 2:25-2:30, Joe: 2:05-2:10)

3 min @ 22s/m - Base + 5-10 (Jane: 2:20-2:25, Joe: 2:00 - 2:05)

2 min @ 26s/m - Base (Jane: 2:15, Joe: 1:55)

1 min @ 30s/m - Base - 5 (Jane: 2:10, Joe: 1:50)

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## Resources, References, and Links

- <http://www.courtney-mitchell.com/5-common-rowing-errors-seen-in-crossfit/#.Vc-ZaxNViko>
- <http://www.concept2.com/indoor-rowers/training/technique-videos>
- <http://www.fitnesscultchronicles.com/blog/2014/8/12/a-rowers-guide-to-conquering-the-erg>
- [http://www.frontrangecrossfit.com/rowing\\_program/](http://www.frontrangecrossfit.com/rowing_program/)
- <https://timeolympics.files.wordpress.com/2012/07/fitnessmatrix.jpg?w=753>
- <http://heartwerks.weebly.com/anatomy-of-a-rowing-machine.html>
- [http://en.wikipedia.org/wiki/Anatomy\\_of\\_a\\_rowing\\_stroke](http://en.wikipedia.org/wiki/Anatomy_of_a_rowing_stroke)
- <http://static1.squarespace.com/static/53cc791ae4b0847eddfba0e2/t/5483c400e4b0195c0da1121b/1417921536876/Water+Drills.pdf>