

Core Stability

Core stability in the rowing stroke

The most important part of the rowing stroke is that big muscle groups deliver loads of joules (power) efficiently to the boat

'Push don't pull'

The rowing stroke is simply a squat jump holding onto one or two sticks

As athletes weigh 6-8 times as much as the boat so driving on the foot stretcher rather than pulling the handles is what counts - similarly a drive on both feet down the centre line of the boat will provide balance. The boat will not balance itself – YOU must balance the boat. This means athletes must have the muscle strength and posture in place to provide stability (this is where the core muscles are used).

Your Glutes

A key part of the activation of core muscles through the rowing stroke is the use of the glute muscles, they ensure equal division of drive on both sides of the body and prevent twisting and damage to the back. A good idea for when you're next in the boat is to look at your knees. If they are moving sideways as you push, or touch each other, you need to work on your glutes. You are aiming for the knees to remain in line with your hips and not move sideways. Not only will this improve posture but it ensures all the power from your legs is going straight down on the foot stretcher and will provide a more efficient stroke.

To activate your glutes:

1. Lie face down on the floor, with your pelvis in the neutral position.
2. Bend your knees and bring the soles of your feet together so they are touching.
3. Push your feet into each other, and feel the tension in your bum
4. To extend this and strengthen your glutes, lift your knees off the floor, being careful not to arch your back

Posture

A key problem in the rowing stroke is bad posture – where athletes sit on the wrong part of their bums meaning the pelvis is in the incorrect position. As a result of this strain is put on the lower back and injury can occur.

To find the neutral pelvis position:

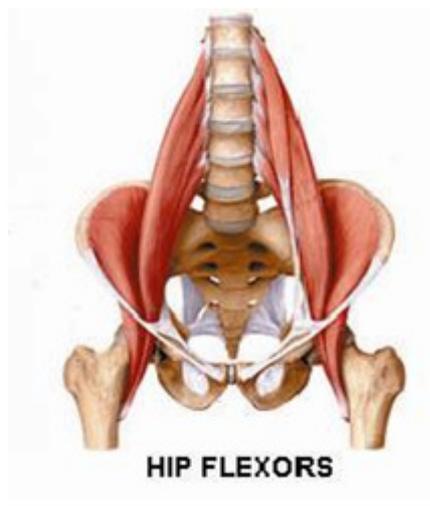
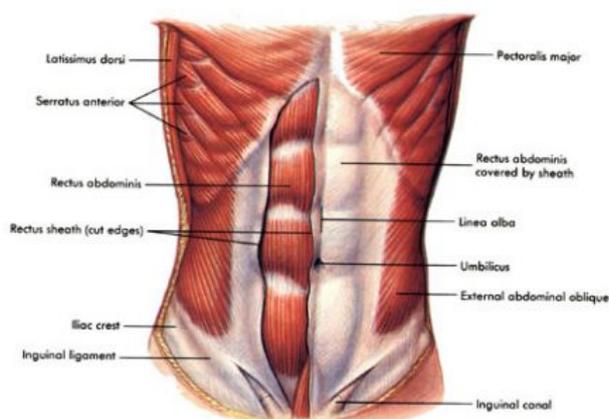
- Stand with your feet hip width apart and place your hands on either side of your hips
- Stick out your bum 'rolling' your pelvis forward – extension. This will move your lower back forwards.
- Then roll your hips in the other direction bringing your lower back 'backwards'. This is usually the position most rowers assume whilst rowing, caused by sitting on the incorrect part of the seat.

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- To extend this exercise practice it whilst seated on the floor with your legs sticking forwards and note the difference caused to the back muscles depending on how the pelvis is positioned. This is similar to how you are seated in the rowing boat – so think about how the way you sit can affect your technique

However, there's no point in having good posture for the two hours that you sit in the boat if for the other 22 you slouch.

Core muscles



The core muscles apply to the muscles found at the oblique's, abdominals, lower back and the glutes. These four areas of the body are the ones that usually frame the posture of a person. The main responsibility of the core muscles is to provide enough power to the body in order to enable it to cope with the dynamic challenges of every physical activity that a person encounters.

Why do you need to strengthen core muscles:

1. *Strengthening core muscles will improve posture and prevent lower back pain (muscular)*
2. *It will help tone the muscles, avoiding further back injury.* Exercising your core muscles will strengthen and tone your lower back muscles and gluts while stretching your hip flexors and the muscles in the front of the thighs.
3. *Improves physical performance.* Exercising the core muscles enhances flexibility, and once this has improved it will improve physical performance

A basic core stability strengthening exercise:

- Lie on the floor with your spine in the neutral position (your back should not be either arched or pushed into the floor). Have your knees hip width apart and bent at a comfortable distance from your bum.
- With all other muscles relaxed, roll your hips backward so your back is supported by the floor. Whilst breathing out, draw your lower abdomen inwards as if you are pulling your belly button into your spine and hold the contraction.

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- As you count to 5, gradually tighten the contraction and hold it for 10 seconds.
- Repeat 5 times

To further strengthen and maintain core muscles practice pulling your belly button into your spine whilst doing different exercises e.g. whilst walking, whilst sitting down, during abs work etc.