

SWEEP Vs SCULL

When is it safe to begin sweep oar rowing?

Are growing bodies more likely to get low back pain when sweep oar rowing?

LOW BACK PAIN AND ROWING

The most common injury in rowing is low back pain.

At the elite junior & senior level there is no difference in how often sweep or scullers get low back pain.

Sweep rowing does not cause spine asymmetry – even in rowers that have rowed for a very long time!

When sweep rowing is performed well, there is very little rotation or side bend of the spine. The pelvis is upright, and the outside arm extends to get length, there is usually only a small amount of upper back rotation – this part of the spine is designed to rotate & manages this well.

LOW BACK PAIN & DEVELOPING ROWERS

There is no research to support sweep or scull being more likely to cause low back pain BUT clinically we see an increase in low back pain when rowers start sweep rowing.

Low back pain with rowing is more likely to be related to reduced hip motion due to growth.



HIP MOTION & PELVIC POSITION & LOW BACK PAIN

Research tells us that having reduced hip motion is more likely to cause low back pain



Scull; when the pelvis is rotated back at the catch, front of stroke length must come from forward bend of the low back, this places stress in the spine.

Sweep; when the pelvis is rotated back at the catch, length comes from forward bend of the low back as well as increased rotation & sideways bend to get the outside arm to the catch position, this places increased stress on the spine.

GROWTH & REDUCED HIP MOTION

Having enough **hip motion** results in upright position of the pelvis at the catch when sculling or sweeping.

A reduction in **hamstring length** results in the pelvis moving backwards at mid-drive, it is then difficult to achieve rock over at the end of the stroke, ultimately resulting in the pelvis not achieving an upright position at the catch – this can even happen when there is enough hip motion.

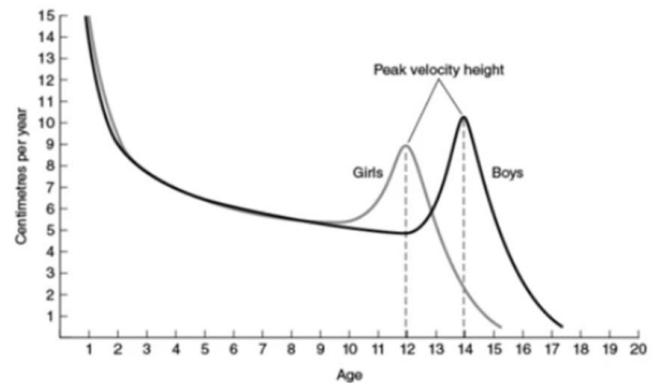
Consider introducing under 16 rowers to sweep rowing & avoiding for younger age groups

Girls will often have their biggest growth spurt between the ages of 11 and 13.

Boys will go through their biggest growth spurt between the ages of 13 and 15.

When the long bones start to grow, the muscles around them lose relative flexibility.

This can result in reduce hip motion & reduced hamstring flexibility.



What is a safe age to start sweep oar rowing?

For girls; maximum growth is usually over before the age of 14, after this will reduce risk.

For boys; maximum growth is usually over before the age of 16, after this will reduce risk.

Of course, there are variations to this for individuals, those that grow late should consider making sure they have enough hip motion and hamstring flexibility before they start to row sweep oar rowing.

Recommendation; U16 is a safe age group for all rowers to consider sweep, even though this is very safe for girls, it allows girls to learn the technique of sculling and the movement patterns around the pelvis for 2 years before moving to sweep. For most boys, the rate of growth is slowing down and their time in sport has increased. Motion is required but repetition of movement patterns ensure the full motion is used.

To significantly reduce risk; have a rowing specific screening with a Physiotherapist or Exercise Physiologist experienced in managing rowers, they can measure hip motion and hamstring length and help you to change this if it is a problem. Sometimes while growing, maintenance is achieved, and gains made when growth stops.

A note on school rowing; often a sweep boat may not be able to race as they are short on numbers, or someone has become injured, it is very easy to consider using younger rowers to fill these places for everyone to get a row. Young rowers fill spots with good intentions, but coaches must consider the effect this will have on the young spines of growing bodies. It will also increase how many races that rower completes which increases the repetitive stress on a growing spine due to increased strokes taken.

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Research supporting this document

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