



BRITISHROWING

Hip Health Management in Rowing

Questions and Answer Sheet

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Questions Unanswered on Webinar

How to treat hip tightness/high hamstring tendinosis when you're 48 and training for racing at Masters C level?

This is a tricky question because there are several factors that need to be considered. Firstly in this area of the body a number of structures could be causing, or be the source of pain, rather than the hip/tendon itself. So, you need to be sure the diagnosis of a high (proximal) hamstring tendinopathy is the right one. Secondly without knowing your past medical history, history and symptoms of this injury itself and your training volume etc... it's difficult to give you the answer you're looking for. Ultimately, I would recommend seeing a physiotherapist so that you can be fully assessed and given the appropriate advice.

However, assuming the above issue is in fact the source and cause of pain I would consider the following:

- Adjusting your seat, using a softer pad on top or changing the seat itself. Tendons don't like compression, so reducing the compression around your sitting bone will likely reduce the aggravation of the issue.
- Maintaining good hip mobility, using the banded distraction drills shown in the presentation are good for this, especially if you are getting some ischio-femoral impingement issues.
- Ensuring your movement quality around your hip hinge is good – again I would recommend using the broomstick as a way of self-assessing your ability to rock over.
- You need to strengthen your “posterior chain” this includes your hamstrings, glutes and erector spinae muscles. Squatting and deadlifting variations are great for this. But be mindful of your depth and the load, as the deeper you go you may irritate the tendon, so work within pain free ranges to begin with, and use safe loads you can tolerate.
- Try not to overstretch your hamstring as this could irritate the tendon. Foam rolling etc... might help improve the compliancy of the muscle tissue in the short term or desensitise the tendon itself in the short term to allow you to exercise or load more pain free.
- Isometrics here are good for the tendon so that you can load it without compressing too much or irritating it. Using variations of bridges are good for this. Lying on your back with your feet on a bench or chair, bridge your hips up to the ceiling and lift off one leg so you are holding the position with the other. Hold for anywhere between 20seconds to a minute and aim for 4-5 sets. Vary your knee position, for example: 90degree, 60 degrees and 45 degrees knee bend. With less knee flexion the harder it will be.

Is the dead lift enough or is a power clean needed?

They are different exercises to be used for different outcomes. A classic deadlift is a great strength exercise for your posterior chain (glutes, low back, hamstrings), with the added benefit of loading your trunk/core, grip strength and upper body too. It is a less technical exercise but needs good foundations and quality of movement to be performed safely and effectively.

Whereas a power clean is a power exercise, to improve your ability to produce force and move something quickly. The power clean is a more technical exercise that needs to be performed well

under good coaching. Once you have developed good foundations in strength and movement quality, it is good to progress to and incorporate power exercises into your programme to improve overall performance. The power clean encompasses a lot of attributes that carry over very well to the rowing stroke and performance.

Have you got any advice for coaches who have noticed that their athletes have a large difference in leg length (>2cm)?

Firstly, I would check if they do have a “true” leg length discrepancy. So, taking measurements from your ASIS to your medial malleolus and comparing left to right. Then taking another measurement from their umbilicus to the medial malleolus and comparing from left to right and with the scores of the previous marker, will allow you to differentiate between a “true” or “pseudo” leg length discrepancy.

If they do, I would recommend a heel raise in the shorter leg and potentially a review with an orthotist. I would also ensure they have some exercises programmed into their weekly sessions in order to address any compensation strategies they have developed. This would be aimed to focus around trunk strength symmetry and hip strength symmetry. I would also bias single leg exercises like split squats for a period to negate this asymmetry and help build muscle around each side.

How can you diagnose whether poor hip mobility is due to anatomical reasons or hip flexibility?

Without images such as X-rays, MRI's and CT scans its hard to say with any certainty. In practice without access to those, a battery of tests looking at; muscle length (adductors, hamstrings, hip flexors, gluteal muscles) compared to passive and active joint movements through range and combined with some special tests like “FADIR/FABER” are your best bet to develop an idea around what might be causing the problem.

How common in FAI-S generally? And in the rowing population?

FAI-S generally isn't that common due to the classic definition of it means that you need to be symptomatic. From studies it appears these morphological/anatomical changes/deformities are quite common in the population, but most people don't exhibit symptoms. So you can't say they have FAI-S for that reason.

In the rowing population it is becoming more prevalent because of the nature of the sport. But again, a lot of our population don't satisfy the definition, and quite often present with low back pain rather than hip pain. Though the low back pain is often driven by how the hip is functioning.

As a 60 year old masters sculler, I have very early stage arthritis in one hip socket and have been to avoid high impact activities. Should I restrict the load and range of movement or try and increase it in the affected hip?

I would follow advice from medical professionals that have seen and assessed your hip. Although arthritis is a progressive, degenerative issue (wear and tear). We know that exercise at the right level, intensity and volume is good for the joint and your pain/function. Maintaining muscle mass and strength around the joint will help support it. Though it is a good idea to follow expert guidance to know what that level might be and what you would respond to specifically.

More importantly, what are your goals and objectives? Do you want to continue to row for fun and leisure or competition? These will also impact the decisions and actions you are happy to make today.

Are growth of a pincer or other deformities in the hip related to snapping hip syndrome?

No, I wouldn't say there is a direct relationship between these. "snapping hip syndrome" tends to be used as an umbrella term for a clicking sound in the hip when it's in motion and this could be due to a number of different reasons:

- An imbalance of muscles around the hip, causing IT band to 'snap' over the greater trochanter
- Iliopsoas muscle moving over bony prominences of the pelvis. Again, generally driven by anatomy or muscle imbalances around those areas causing lack of hip/pelvic control.
- Intra-articular (least common) driven by a labral or cartilage tear.

Is there any way we can test footplate imbalance apart from just visual in a club setting?

Without using quite expensive equipment, it would be impossible to accurately assess foot plate forces. Your best option is using video footage and looking at how the rower is moving in and out of the catch, through the drive and finish. On the ergo, looking at their feet and timing of heel contact, looking for any chain deviation at the catch and finish etc... Also ensuring their pelvis and low back aren't collapsing into the drive, it will give you an idea on how symmetrically they are moving and therefore how effective their force through the foot will be.

When getting to the catch, if the knees can't be held close together is this a tightness in the hips?

Tightness around the hip could be a very likely cause for this. It could also be a technical issue. Often seen in shorter rowers trying to open their hips up so they can get more length in their stroke.

What should you do with somebody who's going through a growth spurt and their hamstrings are immensely tight?

I would encourage a number of things:

- Good diet, their body is growing and needs fuel to accommodate that
- Good sleep patterns, for the same reasons above
- Keep moving and exploring. Playing sport and being generally active is important here to allow them to get to grips with coordinating their changing body.
- Utilise regular stretching to help the muscle tissue accommodate the new length they are being asked to work across. I would advise doing this lying down on their back, so that they aren't just flexing through their spine rather than their hamstrings to achieve movement and stretch. A good example is lying on your back, using a band, towel or dressing gown robe tie to keep the knee straight and pull your leg up until you feel a stretch through the hamstring. Here you can utilise a contract/relax method. Push your leg softly (about 30%) into the band and hold for 10 seconds. Relax and increase the stretch and hold for a further 10 seconds. Repeat this process x 3, rest and repeat 4 sets of 3 each day.

How do you adduct the hip?

For this I'll ask you to lie on your back and imagine you're doing a snow angel. When your legs are moving from being far apart to close together, this movement is called hip adduction.

What tips do you have for explaining this with young athletes, as young as U12 and U13 who are just starting out?

For this age group, I honestly wouldn't spend time explaining this to them at this stage. Their bodies are still growing, developing and changing. The amount of load they are being exposed to is extremely low and this wouldn't be a priority to invest time into right now. At this age it should be about engaging them in sport, variety of movement patterns to explore their bodies and "playful learning". This will help to develop their bones and connective tissue quality, motor control and co-ordination. Enjoyment will be the most important thing here and being creative about how you can challenge their motor control and movement patterns while keeping it fun, enjoyable and competitive in a healthy way will give best results.

How do you improve hip mobility if it's poor? And how long would it take to see improvement? Hopefully this was explained in the talk? But going back to the talk I would gather as much information as possible in order to find out why their mobility is poor and what needs to be addressed. Use video footage of squat patterns, SL squat movements to get an idea of how they move and where their weaknesses are. Can you assess their strength around their hip flexors/adductors and abductors? If you can, gather that info too.

A combined, fundamental approach would include a good mobility programme followed up by strength and stability so that they can control their new range. But what is included in this programme will depend entirely on their needs which will vary from person to person. You can make some changes very quickly (instantaneously with some treatment), but these tend to be short term. Longer changes will come from building strength and control which takes time but will last longer and be more effective in the long run. We would normally expect to see changes in strength with the right programming within 3-5 weeks.

How do help young athletes with hip impingement without 'treatment'?

This is dependant on a few things. How old they are? What is their injury history? What is their training history? Are they hypermobile and flexible or hypomobile and stiff? Are they currently going through a growth spurt? Etc... It's such a broad topic with endless causes and options that will vary from athlete to athlete.

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Have I understood correctly that it's not effective to attempt to increase hip range of motion by stretching into the end of range position, or not advised?

I'm not saying that stretching is ineffective and not to use it. I wanted to convey the message that stretching and soft tissue release often gets too much attention, when your time would be better focussed on other aspects, such as strength, activation or movement control.

Which weights should we use if there are issues for a member of our squad?

Dead lifts? avoid leg press and power cleans?

You can modify lifts in S&C in order to train around hip issues. Deadlifting in a trap bar/hex bar from the raised handle position for example is a good way to offload the hip and not compress with load into too much flexion. Other options are: loaded glute thrusts/bridges, deadlifting off blocks, box squatting, squatting to rack, front squat changes the mechanics and less hip hinge compared to a back squat, leg press but varying foot position on the plate, split stance variations like a split squat, Bulgarian squat, step ups etc...

You don't have to avoid power cleans. You can clean from blocks or hang positions and you can just perform a clean pull to avoid the catch if that is problematic. You got alternative power options, like med ball throws and slams, jump variations, push press etc...

Don't underestimate the importance of isolated adductor, psoas, glute and trunk work for hip health.

Looking at rear squat photos, pre photos show ankle pronation: is this a sign of asymmetry
Not necessarily. Everybody pronates to some extent. The impact this has further up the chain i.e. on your knee, hip and trunk, is what is important. Pronation could also be driven from the top down, i.e. your hip impacting your knee and then your foot.

How long does the benefit of the injection last and what are they used for?

When there has been excessive compression at the hip this can cause trauma and inflammation within the joint. This can in turn cause pain, which will impact function. The injection serves to reduce pain and inflammation to help improve function.

The benefit of these injections can vary quite a lot and depends what is in the injection itself (there are different types). Some can feel the benefits of an injection for a year or two. While others this might only last months or even weeks depending on what the issue is.

Questions Answered on Webinar

What are some effective stretches to increase range of motion in the hips?

Hopefully this was addressed in the talk?

Following Tuesday's broadcast, how can, in rowing, a coach convince a group of novice men (young students) that lower body mobility and flexibility is important enough to spend time rather than trying to rip the riggers off?

I think I answered this briefly during the webinar. But I'd like to have another go at it. In order to convince younger men (students) you need to tap into what motivates them. Are they motivated by competition and winning? This should be easy to tap into. If they want to become good and win, moving more effectively will help. But I'd say you need to show this to them so they can see it for themselves. Give them something that will make them see or feel improvement in their stroke or in the gym and they will buy into it. Is there more of an alpha male in the group? Explaining the importance to one of them who can influence the others can be an easier way to change the group behaviours.

Are they happy being novices and just rowing for enjoyment with their friends? If so, showing them that injury and health are things that will impact their participation and enjoyment in the long run. Educating them on WHY it is important for their longevity of enjoyment in the sport. Lastly, make sessions engaging and fun. Try to avoid monotony.

What do you mean by 40% on Foot plate.

This was answered during the talk.

Will you cover anything related to the fact that female hormones have a fluctuating cycle? And does this affect hip health?

This is an important area around female health and performance in sport. A lot more information is coming out about the impact the menstrual cycle has on performance. However, to my knowledge there is no evidence around this in relation to hip health or function specifically. I would signpost you more towards the SmartHER project within the EIS that are leading in this area.