

HAMSTRING FLEXIBILITY FOR ROWING

By Graham Healy

(Master PT & Sports Coach, Former Olympic weightlifter Qld titles 1976,
8th Dan Master Martial Arts , Qualified TAFE teacher,
Masters Cert in Dry Needling/Acupuncture, 6 years Med-science studies CQU.
Trained by Leo Young World indoor rowing champ & sports Scientist

www.lowerbackpain.com

www.yunjungdo-healy.com

www.healyshealth.com



The Problem :

Most Rowers have lower back issues and hamstring issues and nobody I see is addressing these issues adequately why?

The Answer :

A deeper understanding of the aggravating issues and appropriate 'real stretching ' techniques is the answer(Focus on the Hamstrings/lower back) .

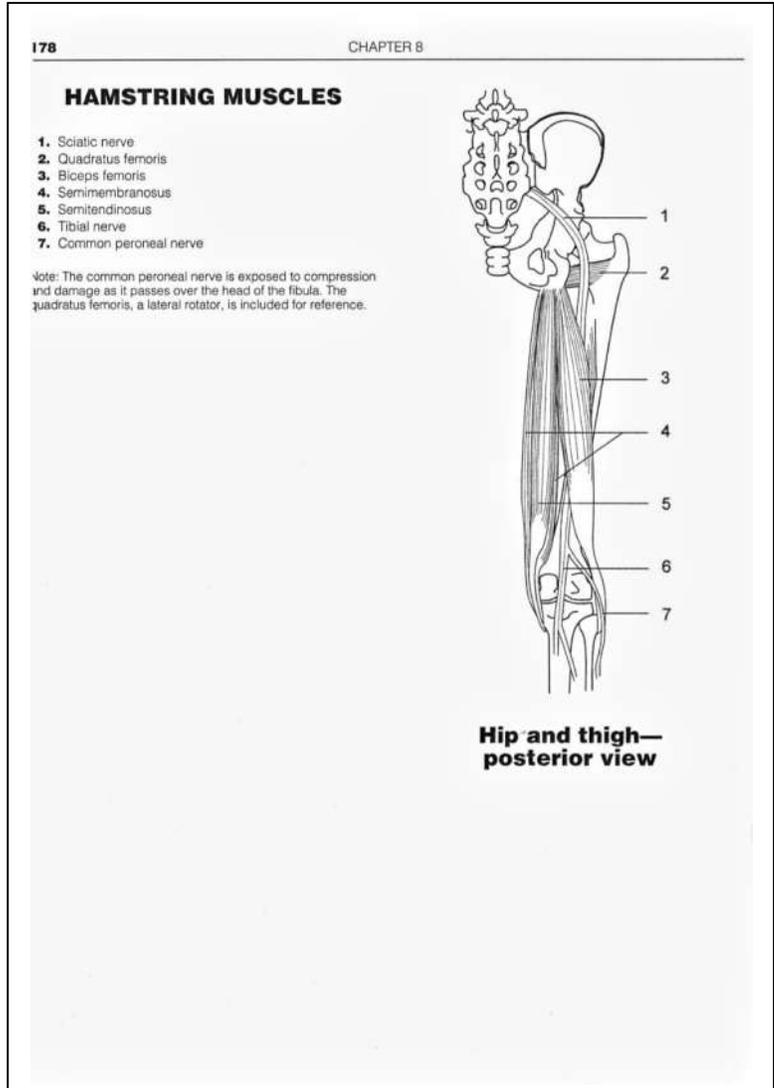
Lets have a quick pictorial look at the anatomy :

- 1) hamstrings (Semitendinosus, semimembranosus, Biceps femoris
- 2)Erector Spinae group (lower back especially)

As the rower rows the process is this: contraction stroke (tucked in) and expansion stroke (flexed out as oar scoops water) this looks simple but in the bodies biomechanics its complicated.

- *extending the leg (quads)(Extension at knee/ flexion at hip)
- *contracting the leg(Hamstrings)(Flexion at knee/extension at hip)
- *contracting the lower back (Erector Spinae) (Flexion bending back /flexion bending Fwd)
- *contracting the arms /torso (lats/biceps) (Flexion)

The body works in synergy and to unwind it we must work in reverse .



Reference source:
3D Anatomy by Elsevier
(education purposes only)
<https://3d4medical.com>

Reference source: Atlas of Skeletal
Muscle by Stone and Stone
(education purposes only)
<https://www.amazon.com.au/Atlas-Skeletal-Muscles-Robert-Stone/dp/007337816X>

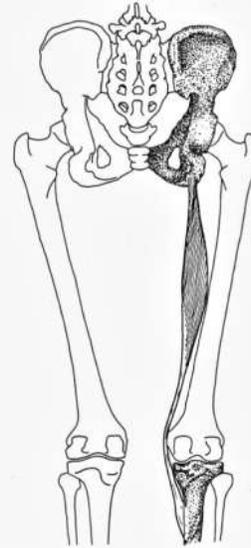
BICEPS FEMORIS
(Part of hamstrings)



Hip and thigh—posterior view

Origin	Long head—ischial tuberosity, sacrotuberous ligament Short head—linea aspera, lateral supracondylar ridge, lateral intermuscular septum	Nerve	Long head—tibial part of sciatic nerve (S1–S3) Short head—common peroneal of sciatic nerve (L5, S1, S2)	178
Insertion	Lateral side of head of fibula and lateral condyle of tibia	Note: During walking or running, the hamstrings are used to slow down the leg at the end of its swing and prevent the trunk from flexing at the hip. They are susceptible to being strained by resisting the momentum of these body parts.		
Action	Flexes leg at knee joint, long head also extends thigh at hip joint			

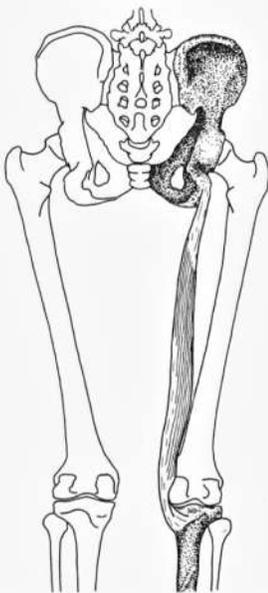
SEMITENDINOSUS
(Part of hamstrings)



Hip and thigh—posterior view

Origin	Ischial tuberosity	Nerve	Tibial portion of sciatic nerve (L5, S1, S2)
Insertion	Medial surface of shaft of tibia	Note: See note on biceps femoris and Relationships section on sartorius.	
Action	Flexes and slightly medially rotates leg at knee joint after flexion, extends thigh at hip joint		

SEMIMEMBRANOSUS
(Part of hamstrings)



Hip and thigh—posterior view

Origin	Ischial tuberosity	Nerve	Tibial portion of sciatic nerve (L5, S1, S2)
Insertion	Posterior part of medial condyle of tibia	Note: See note on biceps femoris.	
Action	Flexes and slightly medially rotates leg at knee joint after flexion, extends thigh at hip joint		

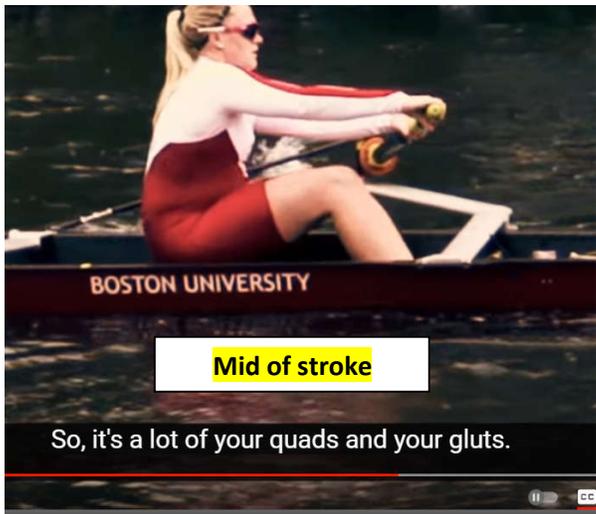


Start of stroke

<https://www.youtube.com/watch?v=YmoqjFRpu8A>

<https://www.bu.edu/articles/2012/head-of-the-charles-the-super-bowl-of-rowing>

Boston University footage referenced



Mid of stroke

So, it's a lot of your quads and your gluts.



End of stroke

ould think that the most vital part of the stroke



LEO YOUNG

MULTIPLE ERGOMETER WORLD RECORDS
INCLUDING C2 500M ROW (1:10.5/1000 WATTS) SINCE 1991
FOUNDER PROJECT SPARTA

Graham Healy
personally trained by Leo Young
in the early days

Graham Healy has designed a **Special Stretching system** that emphasises the stretching of hamstrings, Glutes, Quads That is part of his martial arts class .

The Offer:

1) FREE CLASS to see if it has an effect on your flexibility (I'm sure it will)

2) If you decide to attend regular class times you can purchase a

5 visit pass \$50

or

10 visit pass \$90

Bonus if you decide to also do martial arts training fees are covered by the above visit passes.(class training included)

Next Martial arts enrolments

17 September

Graham Healy mob 0411393503