

ProView



BC Region

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FEATURED ARTICLE

the INSIDE SCOOP

What to know about stretching EFFECTIVELY

by Majorie Lauzon

What to KNOW about STRETCHING EFFECTIVELY

by Majorie Lauzon, B.Sc. Exercise Science, CSIA 4, CSCF 2

Are you a ski or golf pro, an athlete, or a very physically active person? Yes? GAME ON!

Try answering as best you can, the following questions.

Please note that my own answers are not necessarily ultimate but that they are there to guide you.

WHAT ARE THE BENEFITS OF STRETCHING?

- Better posture
- Improved function (better form of movement and efficiency)
- Increased physical performance in sports (strength, power, endurance, quickness)
- Reduced risk of injury
- Reduced chronic pain
- Reduced training recovery time
- Reduced rehabilitation time after injuries (...)

WHAT MAY NEGATIVELY AFFECT THE BODY'S FLEXIBILITY?

- Aging
- Sedentary lifestyle
- Poor posture
- Dehydration
- Injuries
- Repetitive motion (at work and in sports)
- Illness
- Stress (...)

WHAT CAN WE (or should we want to) STRETCH?

- Muscles
- Tendons
- Fascia
- Joint capsules
- Scars and scar tissue (...)

WHAT IS FASCIA?

Fascia is a three dimensional, fibrous tissue web that connects and interacts with all other organs and systems of the body.

WHAT DOES FASCIA HAVE TO DO WITH FLEXIBILITY?

When fascia is healthy, it is pliable and dynamic and is involved in coordinated and efficient body movement and mechanics.

Conversely, when fascia is not in good condition, it can negatively affect one's capacity to move freely, painlessly and with peak efficiency:

- Fascia can thicken with immobility or lack of activity and thus reduce the active and passive range of motion of joints
- Fascia can bond to other structures, such as muscles, favouring neuromuscular compensation in order to address overuse, weakness and injuries. If there is no proper rehabilitation to restore normal function, further muscle compensation can occur, leading to further injuries and chronic pain (inflammation, muscle stiffness, trigger points and strains)
- Physically traumatised fascia repairs itself with scar tissue, which is often a rather disorganised deposit of collagen fibres, that can restrict freedom of movement if not properly retrained and realigned

DIAGRAM: *Myofascial Meridians for Manual and Movement Therapists* by Thomas W. Myers
Second Edition, CHURCHILL LIVING STONE ELSEVIER, 2009



CONTRACT AND RELEASE STRETCHING TECHNIQUES EXPLOIT PHYSIOLOGICAL REFLEXES THAT HELP MUSCLES AND TENDONS TO RELAX AND RESPOND MORE EFFICIENTLY TO STRETCHING

IS MUSCULOSKELETAL TISSUE HEALTH ALL ABOUT STRETCHING?

No. Balance is needed between mobility and stability, along with great coordination for optimal efficiency.



Photo: Majo Lauzon

WHY USE CONTRACT & RELEASE STRETCHING TECHNIQUES?

Proprioceptive Neuromuscular Facilitation technique aka PNF:

- Method involving consecutively contracting the muscles just prior to stretching them
- Exploits the Inverse Myotatic Reflex

occurring when the tendon's receptors signal the muscles to relax beyond a certain point of stretch or tension

- Takes advantage of a refractory period phenomenon that forces the muscle cells to relax for a short time after they have been excited – as they cannot be stimulated right away again

Active Isolated Stretching technique aka AIS:

- Method requiring active movement of limbs into the stretching position prior to the application of an external force, in order to passively stretch them further
- Exploits a Reciprocal Inhibition Reflex which forces the muscles to relax while their opposing action muscles are being contracted

See Fall/Winter 2012-2013 article featured in CSIA BC ProView – a full, free stretching program:- "Stretch Out for Ski Season" <http://www.kinesiomaajo.com/blog/stretch-out-for-ski-season/>

WHAT'S A GOOD TIP TO IMPROVE THE STRETCHING RESPONSE?

Slow down the stretch rhythm by deepening and following the breathing pattern e.g. move in and out of the stretching positions in 2-4 seconds for each phase, and always exhale into the stretching portion.

This allow the parasympathetic nervous system to dominate and relax the body.

WITH THE GOAL OF IMPROVING FLEXIBILITY, IS THERE A BAD TIMING TO STRETCH?

As the tissue lengthening will cause a decrease of performance due to a series of physiological responses:

- Stretching is not recommended within 2 hours prior to a sporting event, unless flexibility is specifically a performance factor (e.g. gymnastics & martial arts)
- Stretching is also not recommended immediately following an intense physical activity that will likely cause important delayed onset muscle soreness (DOMS)

See "Performance Enhancement Warm Up..." ARTICLE <http://www.kinesiomaajo.com/blog/performance-enhancement-warm-up-for-cyclists-and-triathletes/>

HOW TO MODIFY STRETCHING PRIOR TO A SPORT EVENT OR PHYSICAL ACTIVITY TO INCREASE PERFORMANCE?

Accelerate the stretch rhythm by moving dynamically, and in control, in and out of each stretch position to favour range of motion freedom and limit muscle gliding restriction.

This will also promote activation of all joints and muscles by using very light and rather quick body resistance movement such as arm circles, trunk twists and leg swings.

STRETCHING

THE INSIDE SCOOP

This way the sympathetic nervous system is activated and puts the body on the alert mode and ready to act and react.

See "Performance Enhancement Warm Up..."
VIDEO <http://www.kinesiomaajo.com/blog/performance-enhancement-warm-up-for-cyclists-and-triathletes/>

HOW MUCH COMMITMENT IS NEEDED TO BECOME MORE FLEXIBLE?

A lifelong commitment to not only regular stretching but also frequent exercising on a daily basis will create changes in muscle length, increase neuromuscular tolerance to physical activity, and optimize movement mechanics, function and health. In other words, move a lot and often within your capacity!

HOW TO GET A BOOST AND MINIMIZE ACHING?



Photo: Majo Lauzon

Remember there is a reason some muscles always remain tight, therefore stretching, massaging and foam rolling alone will not necessarily correct the cause and be a permanent solution. Often the problem resides in existing multiple relationships between

soft tissue components whereby some are overworking to compensate for others that are underworking and not adequately accomplishing their structural function, leading to the sensation of tightness and pain.

Hire a health practitioner such as a kinesiologist, massage therapist, physiotherapist, chiropractor or athletic trainer trained in NeuroKinetic Therapy™, Fascial Stretch Therapy™, Active Isolated Stretching or similar modalities.

They are trained to help you reach your optimal potential, by finding your muscle imbalances and work on more efficiently and permanently correct them, so you can translate your progress to your sports and enjoyment of life!

Thanks for reading once again!
Be strong and efficient,



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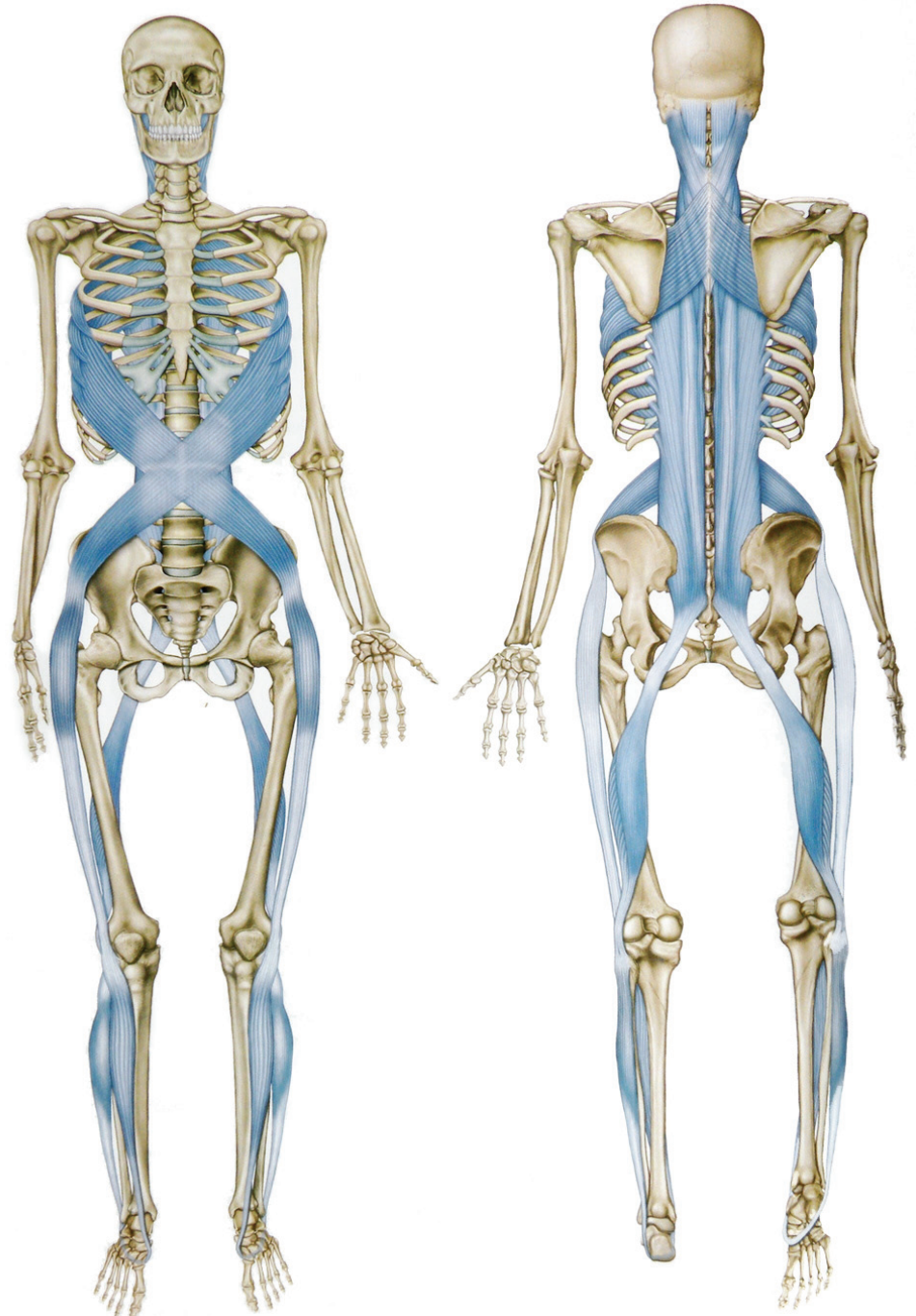


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