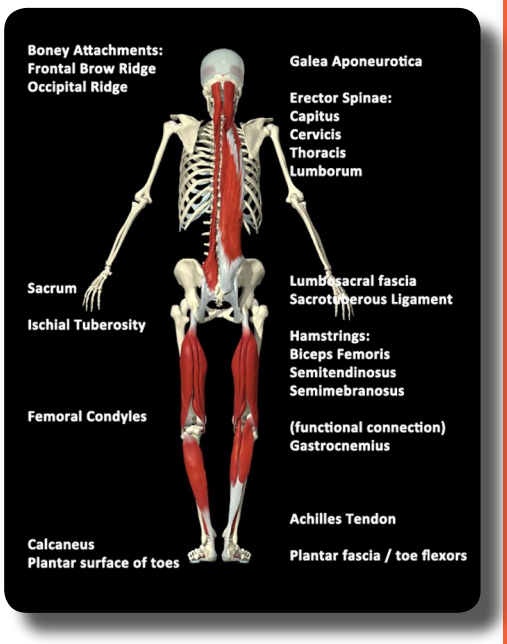
CIRCUS CONDITIONING

Free your body: release your fascia to improve your yoga

What we've been taught about anatomy in school and in textbooks is not necessarily wrong, but is only part of the picture. The word *anatomy* itself stems from the Greek word anatemnō meaning to "cut up" or to "cut open" and traditionally anatomy has been taught in a microscopic fashion. In order to understand the body as a whole we need to include the examination of the most prevalent tissue in our body – our fascia. Our body is in fact a highly organized web of interconnected fascia. Traditionally fascia has been considered just the 'glad-wrap' around our muscles when in reality it is so much more - fascia forms the biological container and connector for every organ in our body (Myers, 2011).

A BALL CAN CHANGE MY FORWARD BEND?

This 'plantar fascia release for forward bend' exercise is a great example of how pervasive our connective tissue is. This directly affects the Superficial Back Line (from Anatomy Trains, 2nd Ed). We all spend a great deal of time on our feet and it is likely there are issues with the tissue at the soles of our feet – the plantar fascia. This area is directly linked via a single line of fascia all the way to the ridge at our eyebrows. The massage ball is essentially providing re-hydration to tissue at the sole of the foot. This helps reinvigorate the sponge-like quality of the tissue that is dehydrated and lost its' ability to move. All healthy tissue in the body acts like a sponge (see below, Fascial Fitness 'Hydration and Renewal').



ANIMAL INSPIRATION

I often find it useful to look at the animal kingdom to help understand the human body. I had never studied comparative anatomy at school but wish that I had. Dog-sitting a 6 year-old greyhound named Indi has also helped me understand what our body really needs. No-one has ever had to teach a dog proper warm-up techniques! Without fail, Indi performs 3 **specific** exercises regularly over the course of her day – downward dog, upward dog and a whole-body shake. She performs this consistently after laying down for a period or if she knows we are about to go for a walk. Downward dog specifically for her Superficial Back Line (SBL); Upward dog for her Superficial Front Line (SFL) and the whole-body shake for her entire skin and fascial system as a 'wake-up'.

Similarly, studies of animals such as kangaroos have been undertaken to better understand the fascia. Kangaroos can jump much farther than the force of the contraction of their leg muscles should allow. This has been termed the 'catapult mechanism' (Kram & Dawson, 1998).

OUR BODY AS A MACHINE

Out of the industrial ages, it was convenient to think of our body as a mechanism of sorts – our brain as a computer, our heart as a pump, our lungs as bellows and so on. This is probably too simple an analogy; our body is a living, breathing organism which is not just a collection of bones and muscles wired together by tendons and ligaments. Rather, from cells to molecules, organs, bones and soft tissues, we are synergistically-linked tensegrity structures. Tensegrity is the portmanteau of the words tension and integrity, coined by author and inventor Buckminster Fuller in the 1960's. Tensegrity structures gain their strength from the compressive and tensile forces throughout the structure, rather than from the strength of individual members. Tensegrity helps explain how we can perform yoga postures, acrobatics and sports whereas the traditional spinal column/muscle lever analogy does not. The term biotensegrity is now being used – see Dr Stephen Levin's excellent site www.biotensegrity.com.

"FASCIAL FITNESS"

This workshop covers one of the essential elements in a complete fascial fitness workout, namely hydrating and renewing the fascia via release, either with manual therapy, foam rollers, balls, etc. See any of Robert Schleip's work http://www.somatics.de/

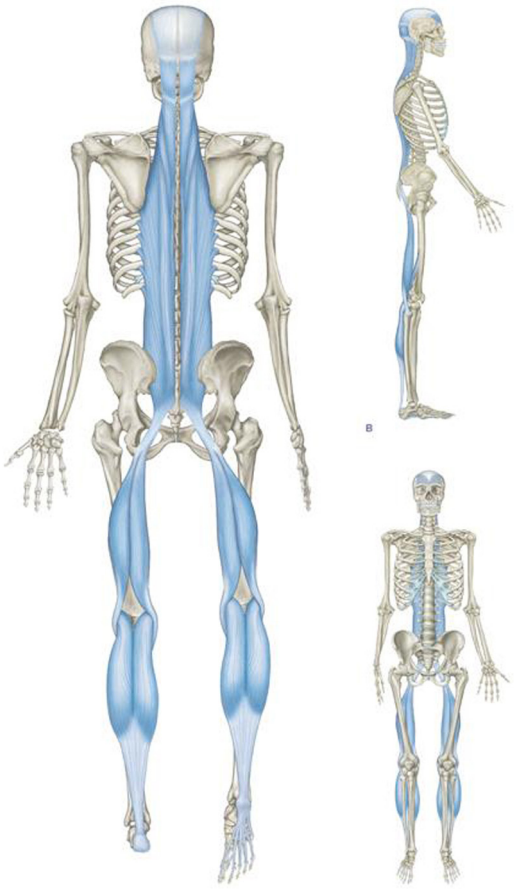
HYDRATION AND RENEWAL

The video shown at the beginning of in vivo fascial tissue by Dr JC Guimberteau illustrates how important water and hydration is to our fascia. Our fascia is predominantly made up of both moving and bound water molecules that move in/out of fascial tissue like a sponge in the more stressed areas when stretching (Schleip & Klingler 2007). More fluid re-fills these areas when the stretch is released, coming from the surrounding tissue as well as the lymphatic and vascular networks - pain or dysfunction in areas is due to poor rehydration at neglected areas. With these types of specific exercises and through various therapies (myofascial, foam roller, etc) the aim is to refresh these neglected areas. Interval training is also recommended over long, intense periods of exercise to allow adequate rehydration of the fascia. Google - JC Guimberteau 'Strolling under the Skin DVD'. See also Davis' Law of Soft Tissue Adaptation.

SUSTAINABILITY

Fascial changes, unlike muscular adaptation, can take a long time and researchers advise between 6 to 24 months before any significant changes may take place. This time-frame will not deter any serious yoga or tai chi practitioner! Training needs to be persistent, regular and in small doses for collagen re-adaptation to occur i.e. daily or every other day in your specific areas – you know where they are now!!

POSES AND FASCIAL LINES



Superficial Back Line (SBL)

- **Epicranial fascia**
- **Sacrolumbar fascia/erector spinae**
- **Sacrotuberous ligament**
- **Hamstrings**
- **Gastrocnemius/Achilles**
- **Plantar fascia**

Line: Superficial Back Line

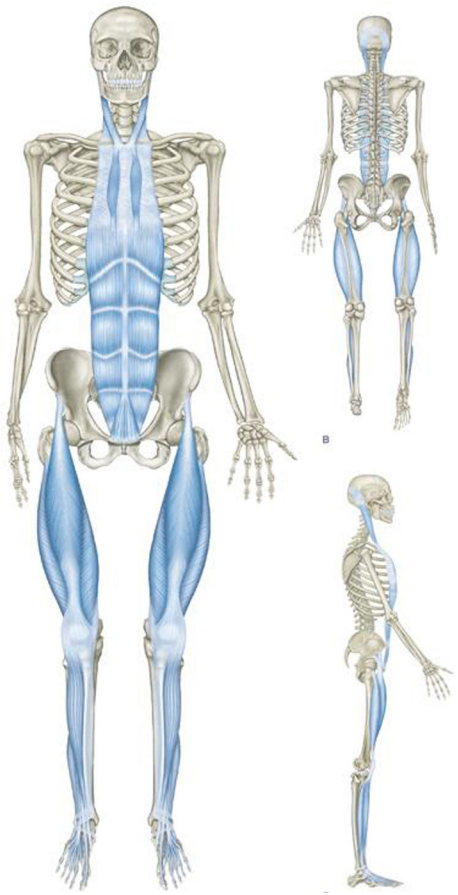
Pose: Forward Bend (Uttanasana)

Release points:

Plantar fascia (with ball) standing on ball

Sacrolumbar fascia(with roller) - lying on your back

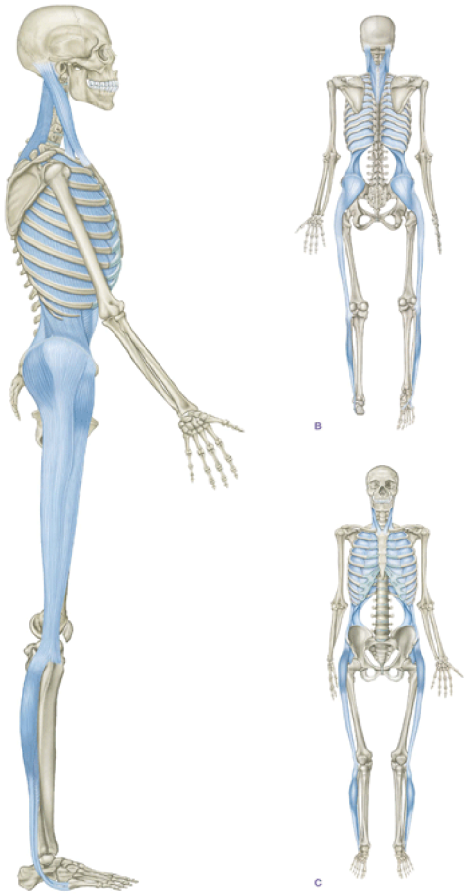
Gastrocnemius/Achilles with roller – in long sitting, either both legs or legs crossed.



Superficial Front Line (SFL)

- **Scalp fascia**
- **Sternocleidomastoid**
- **Sternalis**
- **Rectus abdominis**
- **Rectus femoris**
- **Subpatellar tendon**
- **Tibialis anterior**

Line: Superficial Front Line
Poses: Squat
Baby Cobra/Cobra
Release points:
Pubis (with roller) lying face down on roller, bottom edge of roller anterior to pubis.
Anterior rib line/diaphragm(with roller) lying on stomach, propped on elbows. Roller at anterior rib line.
Sternalis (with your fingers at the front of the chest) space fingers at front of chest, slowly lift head up and down few times, looking upwards.
Anterior ankle retinaculum(with roller) face down roller at front of ankle joint. Alternative position – kneeling over roller.
Rectus femoris (near patella) with roller – face down, roller across the thigh just above kneecap.



The Lateral Line

- **Splenius capitis/SCM**
- **External and Internal intercostals**
- **Lateral obliques**
- **Gluteus maximus**
- **TFL**
- **ITB**
- **Head of fibula**
- **Fibularis longus and brevis**

Line: Lateral Line

Poses: Crescent moon pose (Lateral flexion)

Trikonasana(triangle pose)

Release points:

Lateral hip mobilizer (stride stance with weight on front foot, reach same side hand overhead and push hip laterally) Repeat dynamically for 30 secs or 5-6 reps.

Head of fibula (with roller) in side bridge

Fibularis longus (with roller) in side bridge just below fibular head.

ITB (with roller) upper 1/3 and lower 1/3 ITB near bony prominences

REMEMBER!

Where you are sore is likely where you are bound down in your fascia. Go slowly, fascia is highly sensitive – the pain will lessen after the first few tries.

A little often is better than a lot not so often. A release session of 10mins, 3 times a week will be more effective in the long term than a 30min session once a week.

It takes time! We have built up these areas in our bodies over years and years of injuries, poor posture and job/life stress. A few sessions will unlikely make significant changes in the longer term.

These are not strict rules or releases I have taught you today. I have applied my own knowledge with what I have learnt along the way and applied it to my knowledge of the lines. You can certainly try different areas along the lines and see what happens!

Contraindications – we should obviously be careful in situations such as;

- Pregnancy – you probably would not do the pubis or diaphragm release! Distal areas are probably ok.
- Osteoporosis – not advisable, especially near the bony areas.
- Degenerative conditions – such as OA – again proceed with caution.
- Certain spinal problems – spondylolistheses, disc herniations.
- If in any doubt, then don't do it or teach it!

FINALLY

It's been a real pleasure sharing this with you all. I hope you take it and make it your own. Please feel free to contact me with any questions you may have or if anything was not clear. If you would like me teach a specific workshop at your workplace, yoga studio, gym, etc please contact me and I would be happy to discuss.

M: 0452 614 775

E: trev@airyogaperth.com.au

W: www.circusconditioning.com

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