Anatomy trains

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- Anatomy Trains Myofascial Meridians –
- A Revolution in Soft-Tissue Patterning

Tom Myers

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Superficial Back Line Myofascial Tracks

- 1.Scalp Fascia
- 2.Sacrolumbar/erector spinae
- 3.Sacrotuberous Ligament
- 4. Hamstrings
- 5. Gastrocnemius/achilles
- 6. Plantar fascia

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The Superficial Back Line

- is the work horse of upright posture. It runs from the base of the toes up the back of the body and wraps over the skull to end at the brow ridge.

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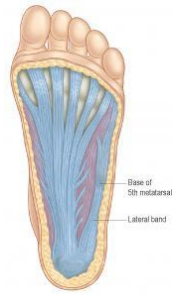
The Superficial Back Line

- From the base of the toes we follow the plantar fascia and the intrinsic muscles of the foot towards the heel, attaching strongly on to the calcaneus



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The Superficial Back Line

- Wrapping under and behind the calcaneus, we continue up the achilles tendon and expand to engulf the soleus and gastroc nemi and the shared tendon sandwiched between them.

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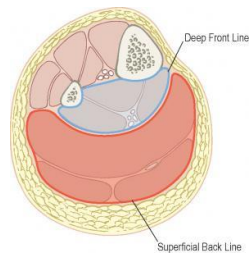
The Superficial Back Line

- The SBL is not just the myofascia, tendons, and perimesiums of the line, but also the fascia compartments that encase them as a group. Here we see these 'grapefruit sections' of the lower leg with the SBL traveling up the superficial posterior crural compartment



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The Superficial Back Line

- Notice that while the superficial gastrocs define the calves' recognizable shape, it's the deeper soleus that gives it it's bulk. The soleus, being a local, will be more posturally involved.

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The Superficial Back Line

- Continuing on up we cross the knee via the two heads of the gastrocs. As we do so the three tendons of the hamstrings reach down around the gastroc heads, grasping the heads of the tibia and fibula. Originally, this was considered a derailment in the Anatomy Trains theory, with no direct fascial continuity. However, this was proven false at the first Anatomy Trains dissection. The two are indeed connected

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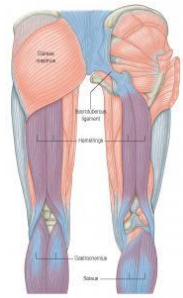
The Superficial Back Line

- Continuing on up the hamstrings we travel under the gluteus maximus to attach at the ischial tuberosity. This is clearly continuous with the sacrotuberous ligament and on to the sacral fascia.



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The Superficial Back Line

- The sacrotuberous ligament is a big, thick band of fascia. It needs to be tight. It works to ensure that our sacrum stays in place as we bend forward.

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The Superficial Back Line

- From here the fascia expands massively to encompass all of the erectors. This includes the big, superficial expresses: longissimus and iliocostalis, and the ever smaller, deeper muscles underneath: spinalis, semispinalis, and multifidus. The transversospinalis are the deepest, most local of the erectors spanning only one vertebrae each: intraspinalis, intratransversalis, and rotatores.

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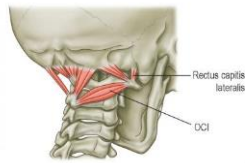
The Superficial Back Line

- At the top of the transversospinalis we come to the sub-occipitals. This specialized group of locals have a high number of muscle spindles (36 per gram compared to the gluteus maximus, which has .7 - 50 times more). This insures our spine always knows where our head is pointing. Many of our clients' postural patterns include hyperextension of the head and neck, locking the suboccipitals into a shortened, dysfunctional state. We will never get our clients' heads on right if we don't free up the suboccipitals



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The Superficial Back Line

- The SBL continues onto the occiput, merging with the more superficial fascial layer of the sterno clido mastoid (SFL) and the trapezius (SBAL) and forming the scalp fascia. Wrapping over the skull the SBL attaches at the brow ridge, just above the eye sockets

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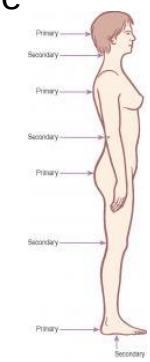
The Superficial Back Line

- We wouldn't give the SBL justice if we did not consider its relationship to the primary and secondary curves of the body. Primary curves refer to the original fetal curve (think of the fetal position). The whole body curves forwards and inwards tight enough to fit into the womb (except the knees which bend backward). As the newborn baby explores its world and strengthens s/he will grow its' secondary curves.



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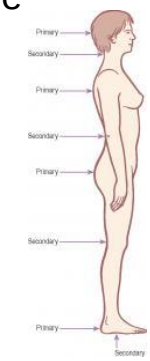
The Superficial Back Line

- • The cervical curve strengthens when the baby lifting its head and looks around (tummy time).
  • The low back curve strengthens through sitting and crawling.
  • The secondary curve of the knees stabilizes from kneeling, standing, and cruising (walking along the coach).
  • Lastly, at about 1 ½ years, the arches of the foot grow from the walking, running, and jumping.



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Superficial Front Line Myofascial Tracks

- 1. Scalp Fascia
- 2. SCM
- 3. Sternalis/sternochondrial fascia
- 4.Rectus Abdominus
  5.Rectus Femoris/quads
- 6. Subpatellar Tendon
- 7. Short and long toe extensors.

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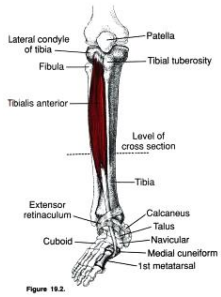
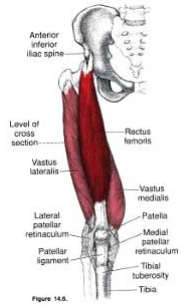

Lateral condyle of tibia
Patella
Tibial tuberosity
Fibula
Tibialis anterior
Level of cross section
Tibia
Extensor retinaculum
Calcaneus
Talus
Cuboid
Navicular
Medial cuneiform
1st metatarsal


Anterior inferior iliac spine
Level of cross section
Rectus femoris
Vastus lateralis
Vastus medialis
Patella
Lateral patellar retinaculum
Medial patellar retinaculum
Patellar ligament
Tibial tuberosity
Tibia

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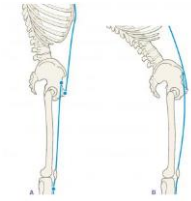

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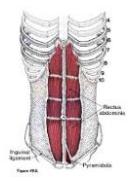

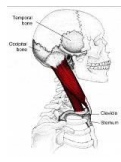

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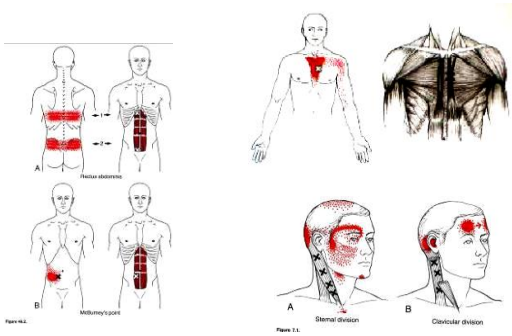

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Lateral Line Myofascial Tracks

- 1. Splenius Capitus/SCM
- 2. External and Interal intercostals
- 3. Lateral Abdom Obliques
- 4. Gluteus Max
- 5. TFL
- 6. Iliotibial tract/abductor muscles
- 7. Anterior ligament of the fibular head
- 8. Peroneal muscles/lat crural dept

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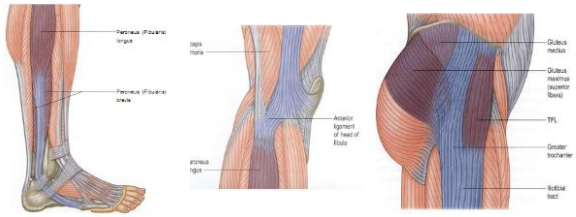
Peroneus (Fibularis) longus
Peroneus (Fibularis) brevis
Anterior ligament of head of fibula
Gluteus medius
Gluteus maximus (superior fibers)
TFL
Greater trochanter
Iliotibial tract

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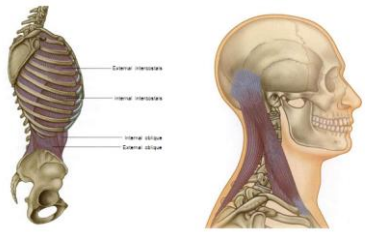
External intercostals
Internal intercostals
Internal oblique
External oblique

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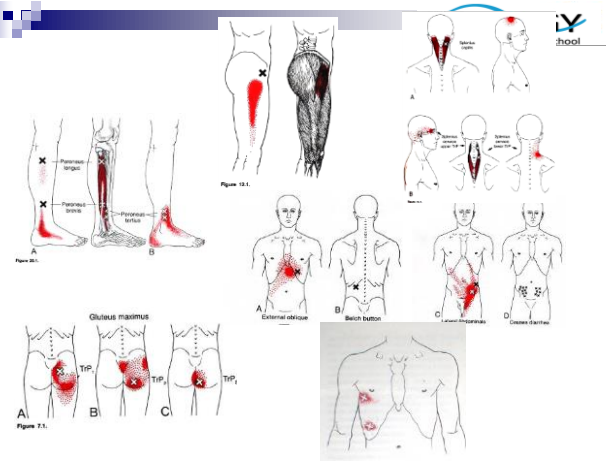
Peroneus longus
Peroneus brevis
Peroneus tertius
Gluteus maximus
TrP1
TrP2
TrP3
External oblique
Belch button

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Spiral Line Myofascial Tracks

- 1. Splenius cap. and cer.
- 2. Rhomboids Maj and Minor
- 3. Serratus Anterior
- 4. External Obliques
- 5. Abdominal Aponeurosis, linea alba
- 6. Interal obliques
- 7. TFL, Illiotibial tract
- 8. Tibialis Anterior
- 9. Peroneous Longus
- 10. Biceps Femoris
- 11. Sacrotuberous Ligament
- 12. Sacrolumbar Fascia, erector spinae

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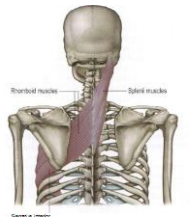

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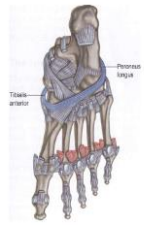

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Deep frontal line

- Posterior tibialis
- interosseuos membrane
- Knee capsule, Popliteus
- Adductor magnus and minimus, Femoral triangle
- Psoas, Iliacus, Pectineus
- Diaphragm, pericardium, mediastium,parietal pleura, fascia prevertebralis
- scalenes, Infrahyoid & suprahioid muscles
- Masseter
- Temporalis

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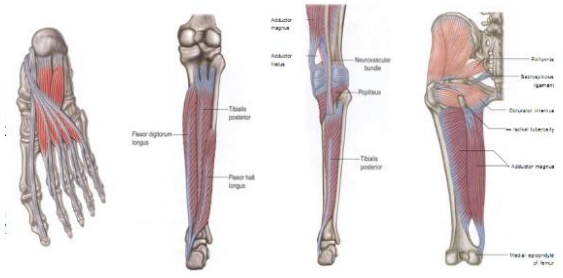

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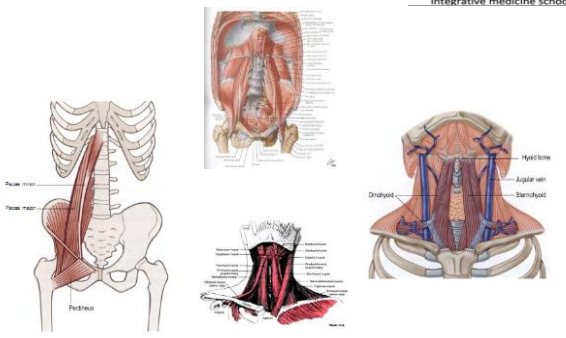

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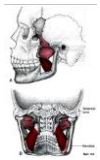
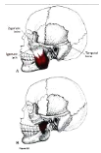
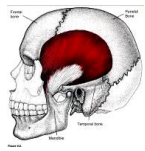

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בדיקה וטיפול ברכבות אנטומיות מתחילים אך ורק כאשר בדיקה נוירולוגית של הגפיים התחתונות תקינה לגמרי!

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Anatomy

- רכבות אנטומיות (שרשרת אנטומית) בנויות משרירים (חוליה בשרשרת)
- ומאזורי מעבר בין השרירים (מקום חיבור של החוליות)

- מקומות חיבור בין השרירים מתרחשים באזורים עם מחיצה אופקית – סרעפת.

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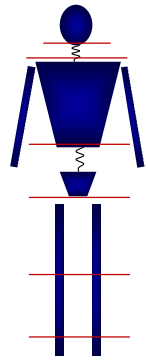
Diaphragms

- Low jaw diaphragm
- Suprapleural membrane (thoracic inlet)
- Breathing diaphragm (thoracic outlet)
- Pelvic floor
- Knee
- Ankle



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עקרונות פיזיולוגיים

קיים חוסר איזון בין הרכבות בדומה ליחסים בין השרירים

אגוניסט-אנטגוניסט

אגוניסט-סינרגיסט

רכבות בילטרליות

חוזק של השרשרת כולה כחוזק של החוליה הכי חלשה בתוך השרשרת

חולשה של שריר אחד יגרום לכיווץ של שרירים אחרים בתוך השרשרת

כיווץ של שריר אחד בתוך השרשרת גורם לפסצילטציה (טונוס מוגבר) של כל השרירים בתוך השרשרת

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עקרונות פיזיולוגיים

שרשרת כולה בדומה לשריר יכולה להיות בשלושה מצבים: נורמוטוני, היפוטוני, היפרטוני.

מצב היפרטוני של השרשרת נגרם על ידי היפרטונוס של שריר אחד או מספר שרירים בשרשרת

אחראי על המצב הזה MUSCLE SPINDLE

מצב היפוטוני של השרשרת נרגם על ידי מתח שנוצר באזורי חיבור בין השרירים

אחראי על המצב הזה GOLGGI ORGAN

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Indicator muscle

Hamstrings - SBL
Rectus Femoris - ASL
Adductor - ADL
TFL - Lat L
TFL - Spir L

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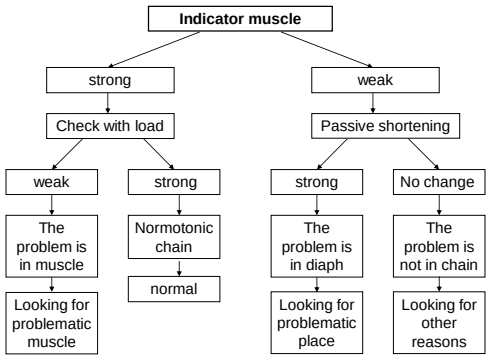

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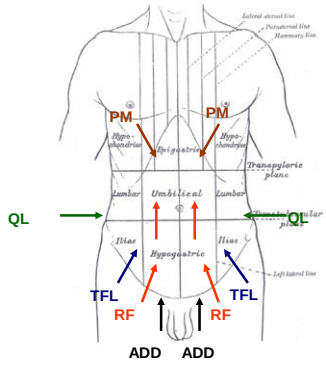
STABILISATION



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