

樂施毅行者2019 物理治療師的建議 Oxfam Trailwalker 2019 Physiotherapy Advice

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Association
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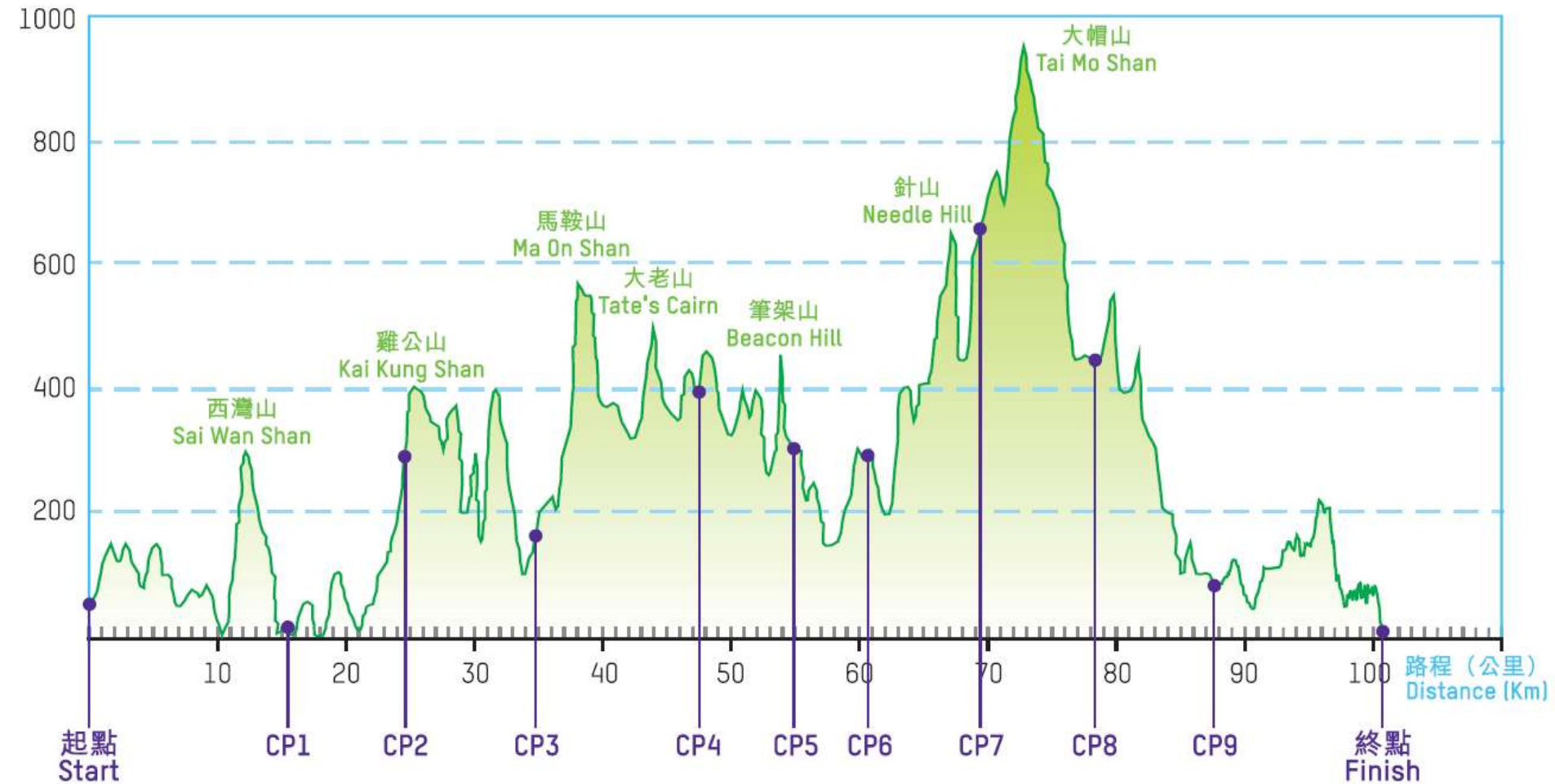
內容Content

- 毅行常見的肌肉骨骼傷患
Commonly Seen Musculoskeletal Problems in TW
- 預防及訓練方案
Prevention and Training Protocols
- 行山鞋的選擇
How to Choose Trail Walking Shoes

- 
- 功能性鍛煉運動
Functional Training
 - 伸展運動
Stretching Exercise
 - 泡綿滾筒運動
Foam Roller Exercise
 - 練習時段
Practical Session



高度 (米) Height (m)





毅行常見的肌肉骨骼傷患

Commonly Seen Musculoskeletal Problems in TW



- 
- 70-80%為下肢傷患
70-80% lower limb problems
 - 當中膝關節傷患佔70%
in which 70% knee problems
 - 前膝痛症及髂脛束綜合症為最常見的肌肉骨骼傷患
Anterior Knee Pain and Iliotibial Band Syndrome most common

前膝痛症 (髕股關節疼痛症候群)

Anterior Knee Pain (Patellofemoral Pain Syndrome)

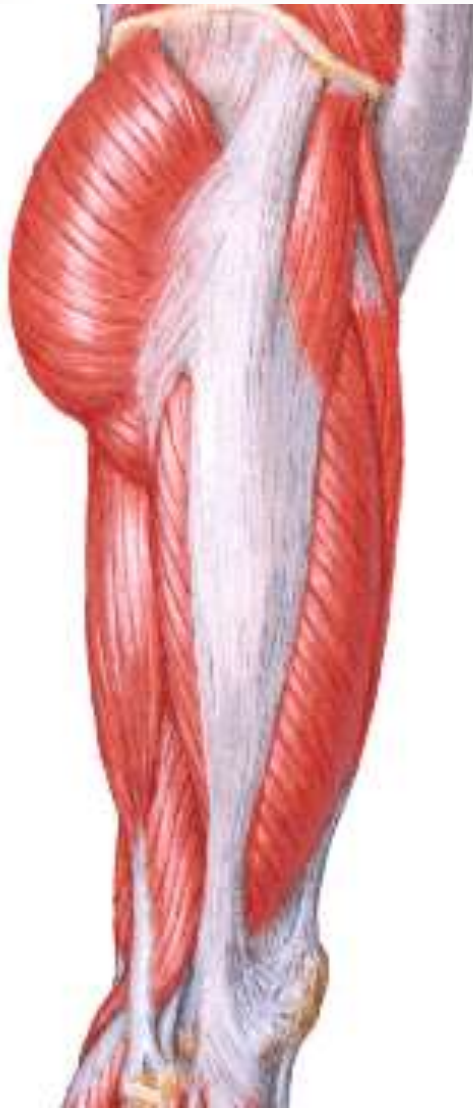


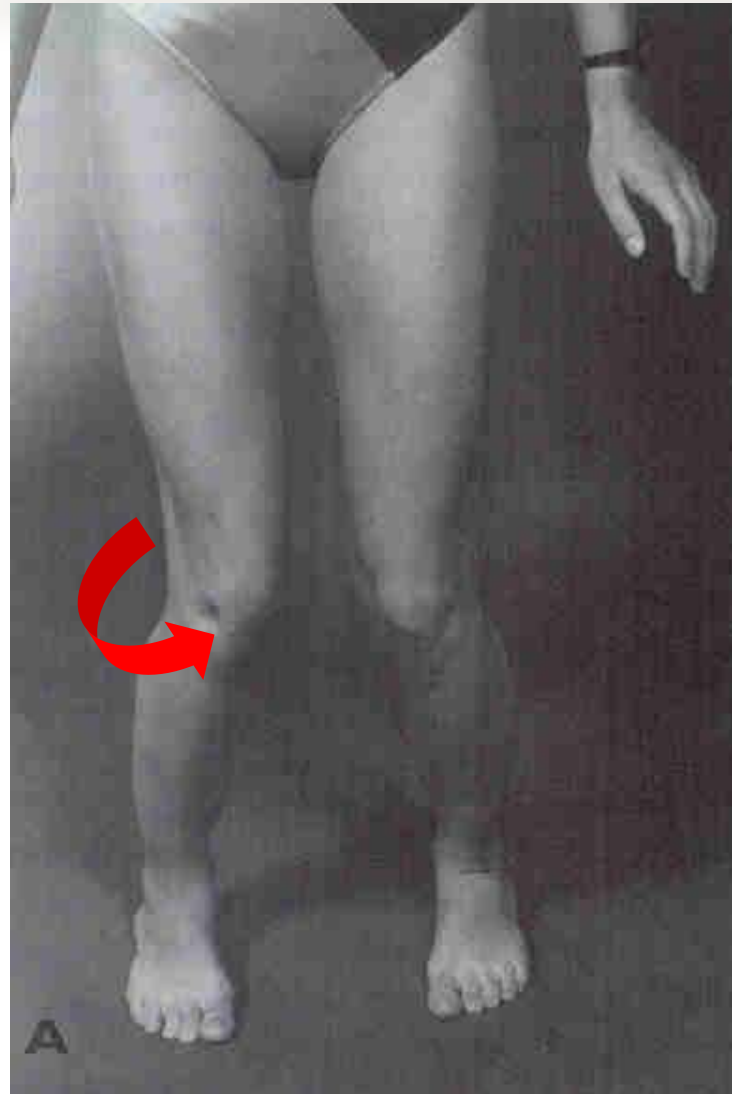




成因 Causes

- 下肢運動力學連鎖反應 **Poor Lower Limb Biomechanics**
 - 肌肉不平衡 (股四頭-股內側、臀中股、臀大股過弱)
Muscle imbalance (Weak in Vastus Medialis, Gluteal Max, Med)







成因 Causes

- 下肢運動力學連鎖反應 **Poor Lower Limb Biomechanics**
 - 生理結構異常（如膝外翻和扁平足）
Knock knee or Flat foot
 - 運動鞋錯配
Wrong choice of shoes



成因 Causes

- 超負荷 Overloading

- 體重、訓練強度、量度遠超過肌肉及相關軟組織所能承受

Overweight and overtraining that exceed the body can handle



預防措施 Preventive Measures:

- 按部就班的訓練方法

Progressive training

- 留意身體反應(紅、橙、綠訊號)

Listen to your body for warning signals

- 有需要時應暫停訓練或調節形式、量度及強度(例如減少落山訓練、加密步頻、收細步幅)

Take a break or adjust the type, volume or intensity of training (*e.g. decrease downhill training, increase the cadence and decrease the stride length*)

■ 冰敷 Ice pack

- 冰敷患處10-15分鐘 10 to 15 minutes
- 按需要一日可冰敷3-5次 3 to 5 times a day



- 
- 功能性運動鍛煉以加強下肢肌肉耐力及關節穩定性(臀大、中肌及股內側頭)(例如棒式撐體、蚌式運動、阻力橫向滑步、分腿蹲)

Functional training to improve the joint stability and endurance strength of lower limb muscles (e.g. gluteal max., med., and vastus med.)(with plank, clam shell ex., side steps with resistance band, split squat)

棒式 Plank



蚌式運動Clamshell Exercise



分腿蹲 Split Squat



- 
- 利用泡綿滾筒Foam Roller放鬆下肢肌肉，特別對四頭中外側及髂脛束等軟組織

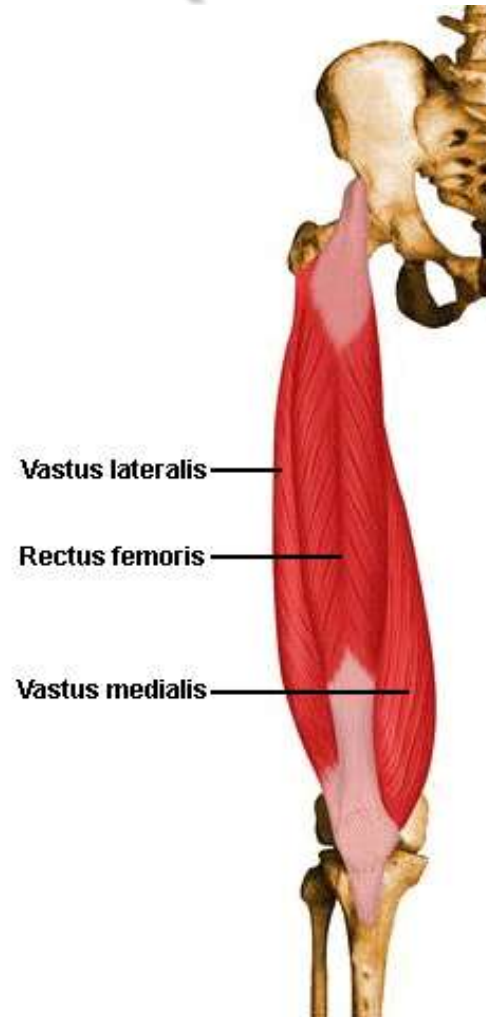
Foam rolling to release the tightness of the muscles and fascia esp. lateral side of quadriceps and IT band

泡綿滾筒運動Foam Roller Exercise



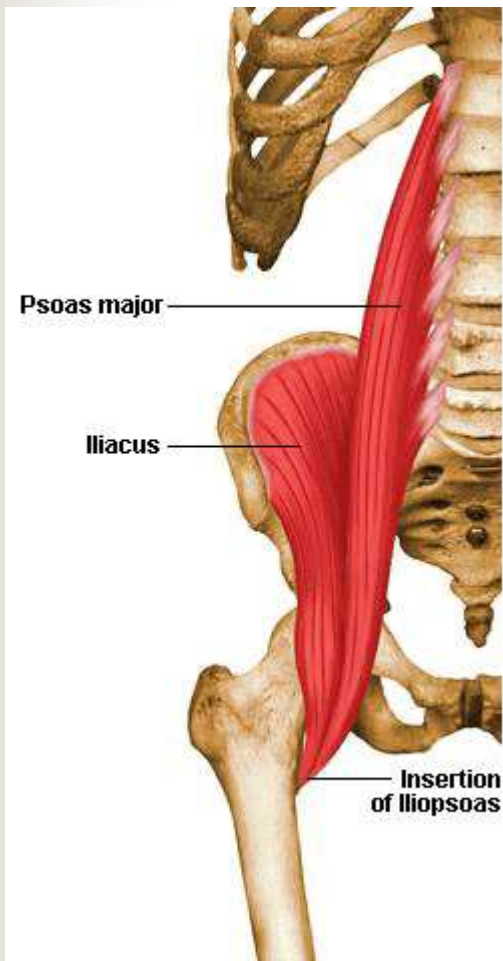
- 
- 配合伸展運動，保持下肢肌肉的柔韌性
Stretching ex to improve the lower limb flexibility
 - 選擇合適的運動鞋
Right choice of sports shoe

股四頭肌 Quadriceps Femoris





髂腰肌 Iliopsoas





髂胫束綜合症

Iliotibial Band Syndrome

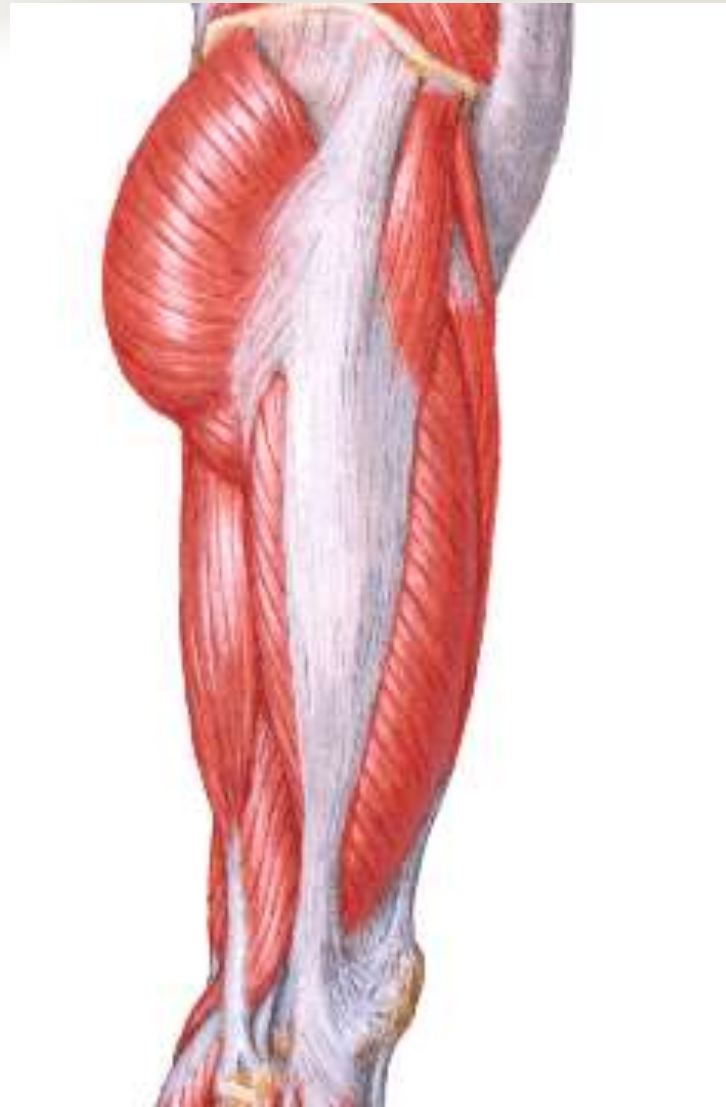






成因 Causes

- 下肢運動力學連鎖反應 Poor Lower Limb Biomechanics
 - 髋部外展肌群變弱 (臀中股、臀大股過弱)
Weak hip abductors (Weak in Gluteal Max, Med)
 - 髋部屈曲肌(髂腰肌、闊筋膜張肌)、髋部外旋肌(梨狀肌)及髋部伸展肌(臀大肌和大腿後側肌群)過度的緊繃
Tight hip flexors (iliopsoas, tensor fascia lata), hip external rotator (piriformis) and hip extensors (gluteus max., hamstrings)





成因 Causes

- 超負荷 Overloading

- 訓練量度(長課)遠超過肌肉及相關軟組織所能承受

Overtraining (**too far too soon**) that exceed the body can handle



預防措施 Preventive Measures :

- 按部就班的訓練方法

Progressive training

- 留意身體反應(紅、橙、綠訊號)

Listen to your body for warning signals

- 有需要時應暫停訓練或調節形式、量度及強度(例如**暫停長課、山路或單車訓練、加密步頻、收細步幅**)

Take a break or adjust the type, volume or intensity of training (*e.g. stop long run, hilly run or bicycle training, increase the cadence and decrease the stride length*)



■ 冰敷 Ice pack

- 冰敷患處10-15分鐘 10 to 15 minutes
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- 功能性運動鍛煉以加強下肢肌肉耐力及關節穩定性(臀大、中肌及股內側頭)(例如棒式撐體、蚌式運動、阻力橫向滑步、分腿蹲)

Functional training to improve the joint stability and endurance strength of lower limb muscles (e.g. gluteal max., med., and vastus med.)(with plank, clam shell ex., side steps with resistance band, split squat)

- 
- 利用穴位按壓(風市穴)及Foam Roller放鬆下肢肌肉，特別針對臀大肌、梨狀肌、闊筋膜張肌及髂脛束邊緣(靠近股四頭肌及大腿後肌外側)

Acupressure at Feng Shi (GB31) and foam rolling to release the tightness esp. gluteus max., piriformis, tensor fascia lata and IT band



按壓風市穴
Acupressure at
Feng Shi

臀大肌/梨狀肌 Gluteus Max./Piriformis



闊筋膜張肌 Tensor Fascia Latae



髂脛束 IT Band

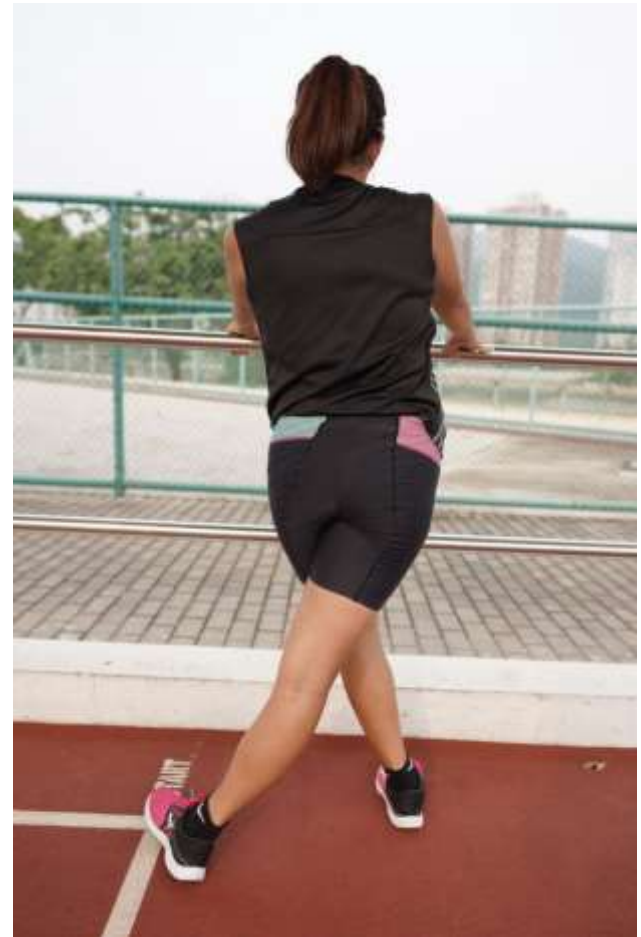
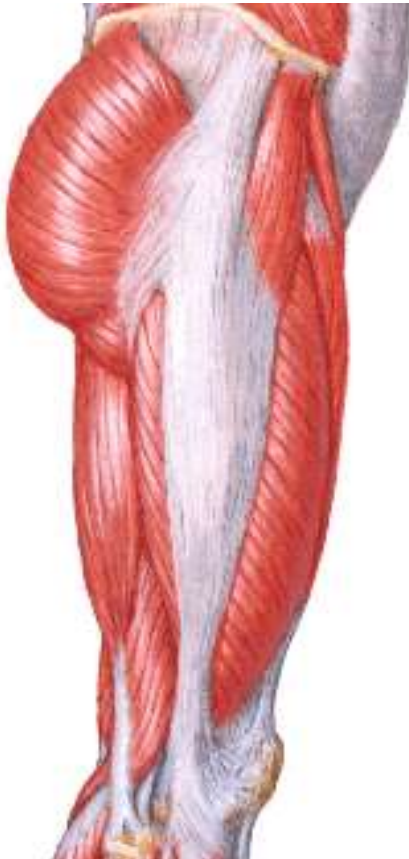


- 
- 配合伸展運動，保持下肢肌肉的柔韌性
Stretching ex to improve the lower limb flexibility
 - 選擇合適的運動鞋
Right choice of sports shoe

股四頭肌 Quadriceps Femoris

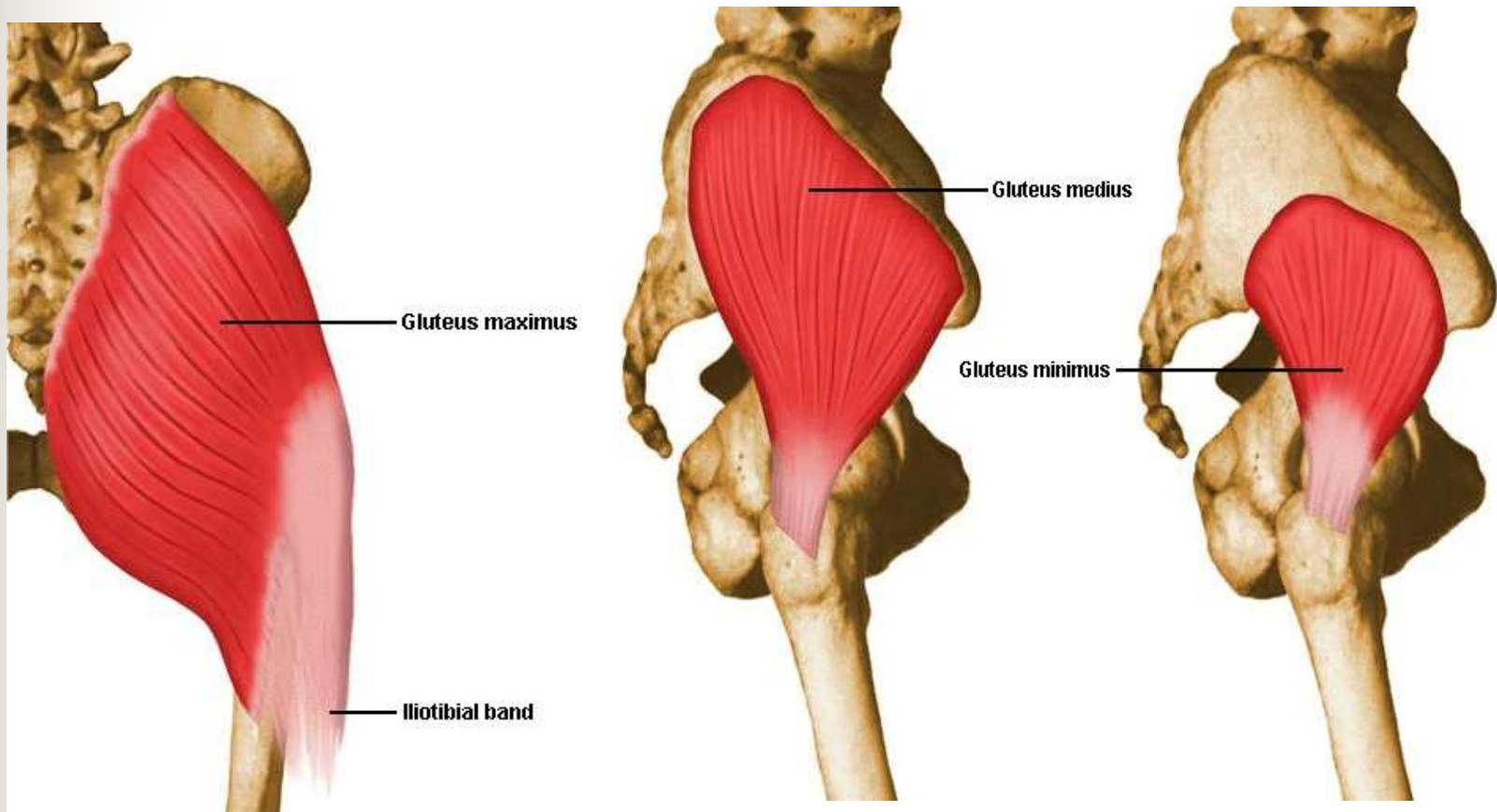


闊筋膜張肌 Tensor Fasciae Latae



臀大、中、小肌及梨狀肌

Gluteal muscles and Piriformis





行山鞋的選擇







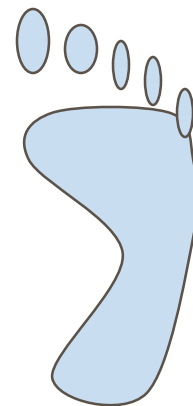


行山鞋的作用

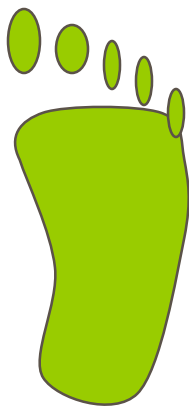
- 配合腳型，有效分散壓力
- 保持腳部平穩
- 可吸震
- 堅固的槓杆用作前推動力

找出自己的腳型

- 正常的腳型



- 扁平足

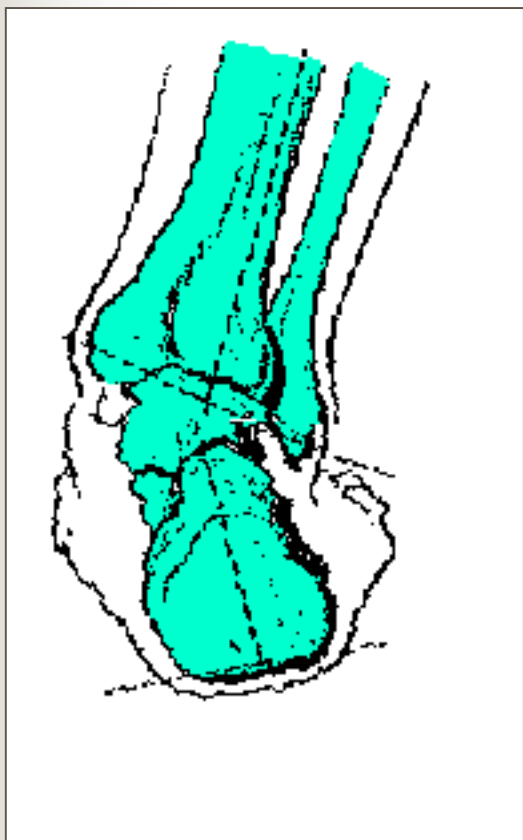


- 高腳弓足

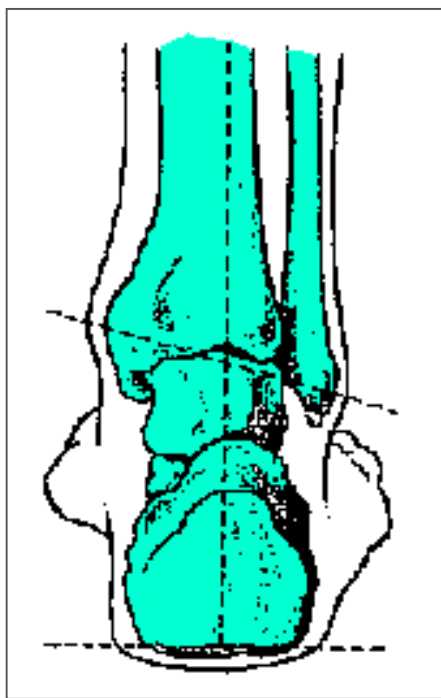




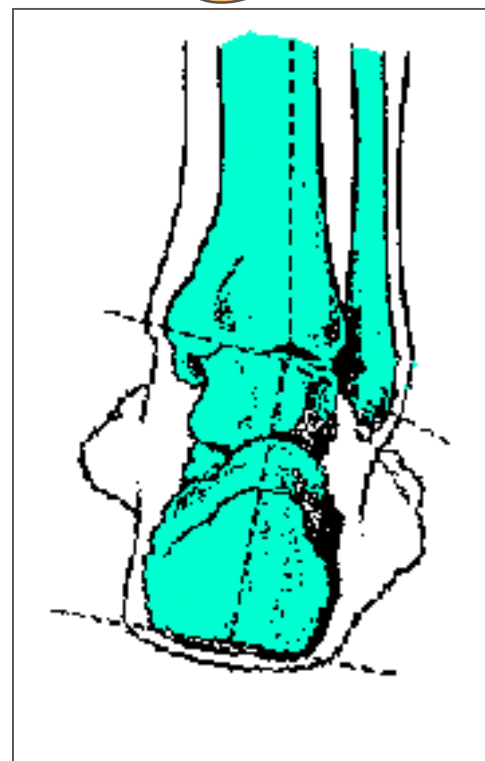




過度內翻



正常體位



過度外翻



- 扁平足

- 支撐型運動鞋

- 正常腳型

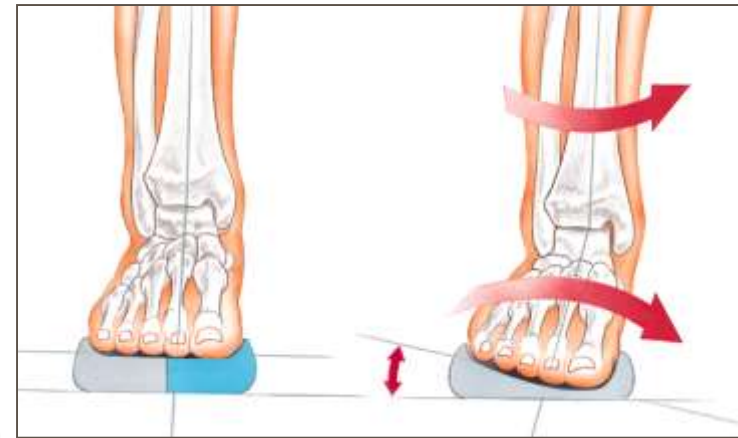
- 中性型運動鞋

- 高腳弓足

- 吸震型運動鞋

支撐型運動鞋

- 內側足弓處有較硬材質
- 較硬及穩固腳撐
- 矯形鞋墊





如何選擇行山鞋

- 先了解腳型 (亞洲人腳型)
- 注意鞋的保護、避震、支撐及透氣等設計
- 傍晚之後住試鞋
- 自備行山襪
- 腳跟留一手指的空間長度
- 繫上鞋帶，下蹲試鞋柔軟度

- 
- 試行上落斜板或單腳踎高腳試鞋頭有冇頂趾
 - 新鞋一般要平日「試著」一兩星期才可落場操山
 - 行山鞋一般「壽命」400至800公里

功能性鍛煉運動

Functional Training





功能性鍛煉運動

Functional Training

- 的目的為及性定穩節關強增、量力肉肌升提
度敏靈

The main goals are to improve the muscle strength,
joint stability and body proprioception

- 核心肌群強化訓練 Core Stability Training
 - 棒式 Plank

- 髖關節、臀部及大腿肌肉強化訓練

Hip, Gluteal and Thigh Muscles Strengthening

- 蚌式運動 Clamshell Exercise
- 分腿蹲 Split Squat



棒式 Plank

- 手肘90度屈曲，上臂垂直支撐上身，從肩膀到腳踝維持一直線，腳掌與地面垂直，腳趾著地

Elbow at 90 degree, plant the elbow directly under the shoulders, squeeze the scap., abs and glutes to stabilise the body

- 保持棒式姿勢20~30 秒，休息 15~30 秒，重複3-5次

Hold 20-30s, rest 15-30s, rep. 3-5 times



- 
- 常見錯誤 Most Commom Planking Mistakes
 - 用手推導致身體往後
Overuse of upper limbs to push back
 - 上背部肩胛骨沒收緊固定
Hanging on scapula, sagging of mid thorax
 - 下背腰部下垂
Collapsing the lower back
 - 臀部抬太高
Reaching the butt to the sky



- 變化棒式 Variations

- 側棒式

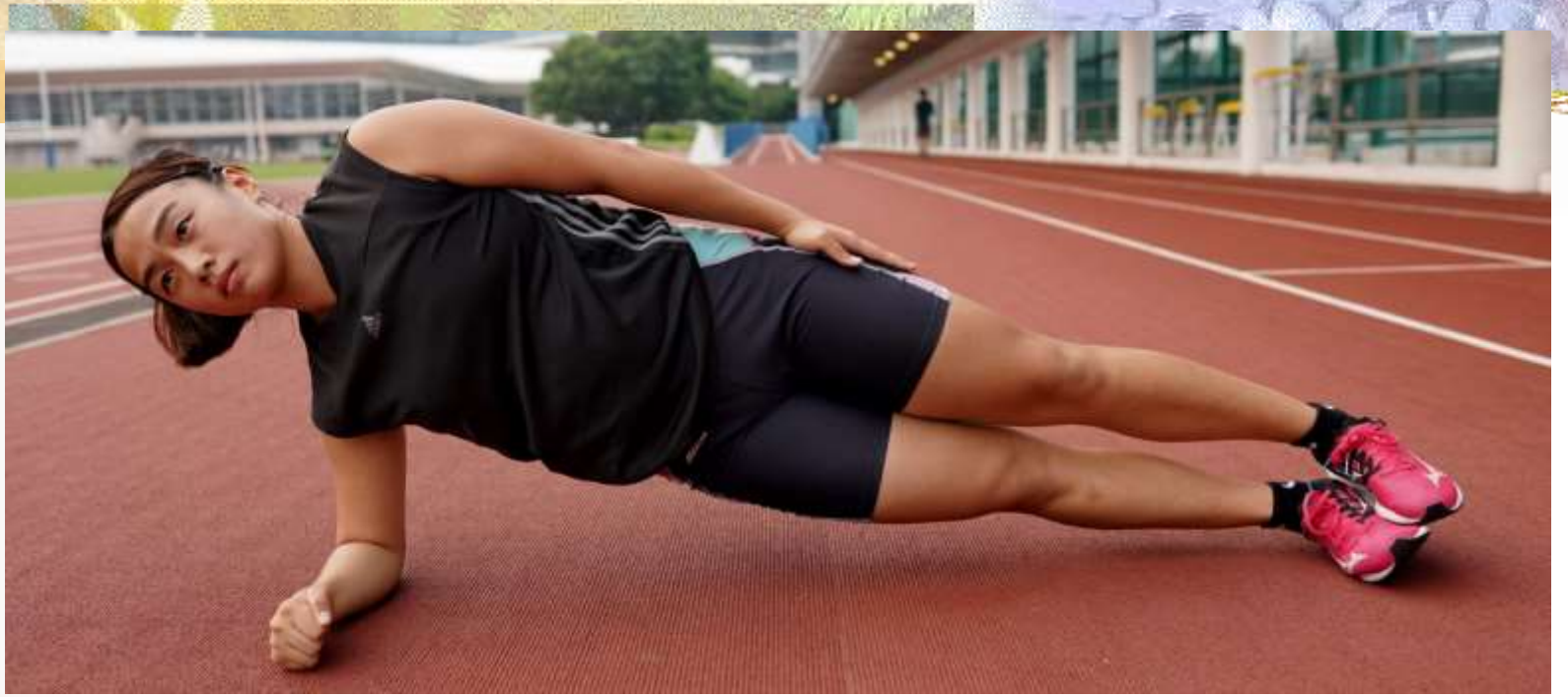
- side plank

- 手部/上半身移動

- with upper limb and trunk movement

- 腳部/下半身旋轉移動

- with lower limb and trunk rotation





蚌式運動 Clam Shell Exercise

- 有效強化大臀及中肌

To strengthen the hip abductors such as glutes

- 垂正側躺，雙腿併攏，髖屈45度，膝屈90度

Lie on side, legs together, bend hips to 45 degrees and knees at 90 degrees

- 
- 收緊腰腹穩定骨盆，保持雙腳腳跟併攏，將上方的腿外旋，抬高膝蓋指向上，並維持10秒，然後將上方腿放下

Set the core muscles to stabilise the pelvic, float the upper leg upwards while keeping the feet together, hold for 10s, then bring the leg down

- 左右腳重複動作5-10次

Repeat 5-10 times each leg

- 
- 動作全程腰部以上維持穩定，臀部在動作時，不要同腰部一起轉

Focus on not allowing the alignment of the body to be disrupted with leg movement









分腿蹲 Split Squat

- 有效強化肌頭四及大臀及臀中肌

To strengthen the Glutes and Quads

- 立站步箭弓後前，直腰，後腳腳跟離地

Back straight, split steps with the heel of back leg off the ground

- 低蹲下向腿雙，心重體身垂直前，降下向於多屈不頭膝腳90度

Bend both knees to lower the body in a sagittal plan, both knees make roughly a 90 degrees angle in the bottom

- 
- 蹲下與站起之過程中，後腳之膝蓋不觸地
Back knee should not touch the ground. From the bottom position, stands back up.
 - 複動作5-10次、前後腳交換再做
Repeat 5-10 times each leg

正確示範 Correct



錯誤示範 Wrong



膝關節向內旋轉
Knee internal rotated



膝關節過份屈曲
Front knee too flexed





■ 進階 Progression

- 前弓步 Forward Lunge
- 後弓步 Reverse Lunge

前弓步 Forward Lunge



後弓步 **Reverse Lunge**



伸展運動 Stretching





伸展運動Stretching Exercise:

- 動態 VS 靜態伸展
 - 運動前 - 動態伸展
 - 運動後 - 靜態伸展
- 動態伸展 Dynamic stretching
 - 開合跳、高抬腿抱膝、分腿蹲、高抬腿跑、踢臀跑、前後交互腳步側跑

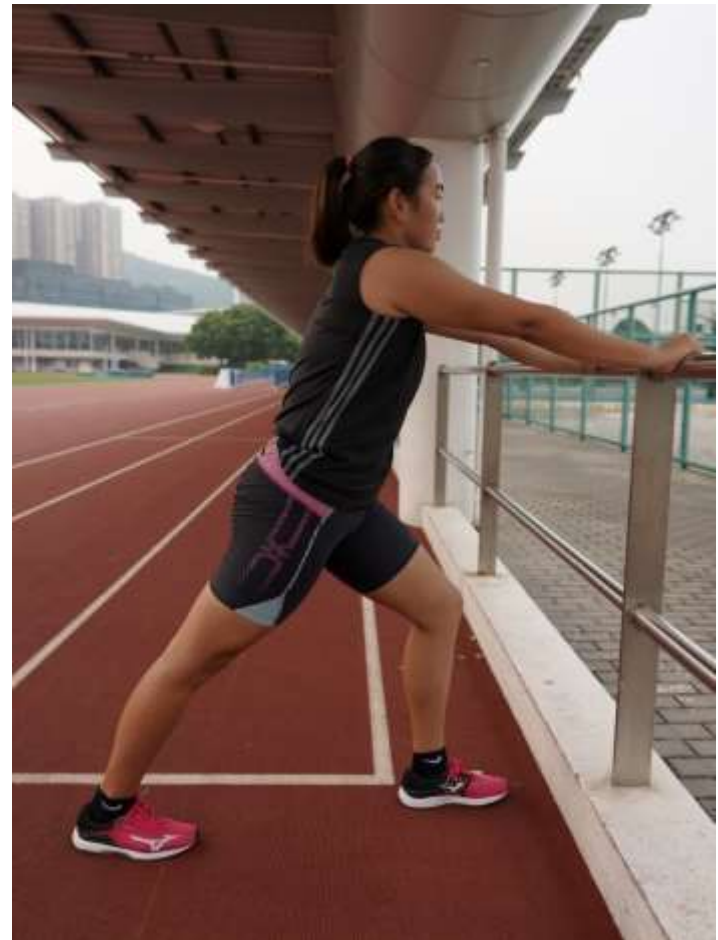
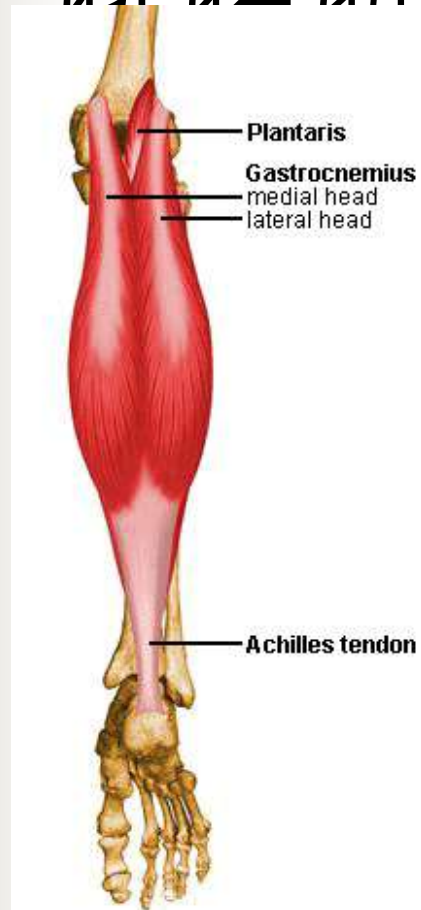
動態伸展 Dynamic stretching

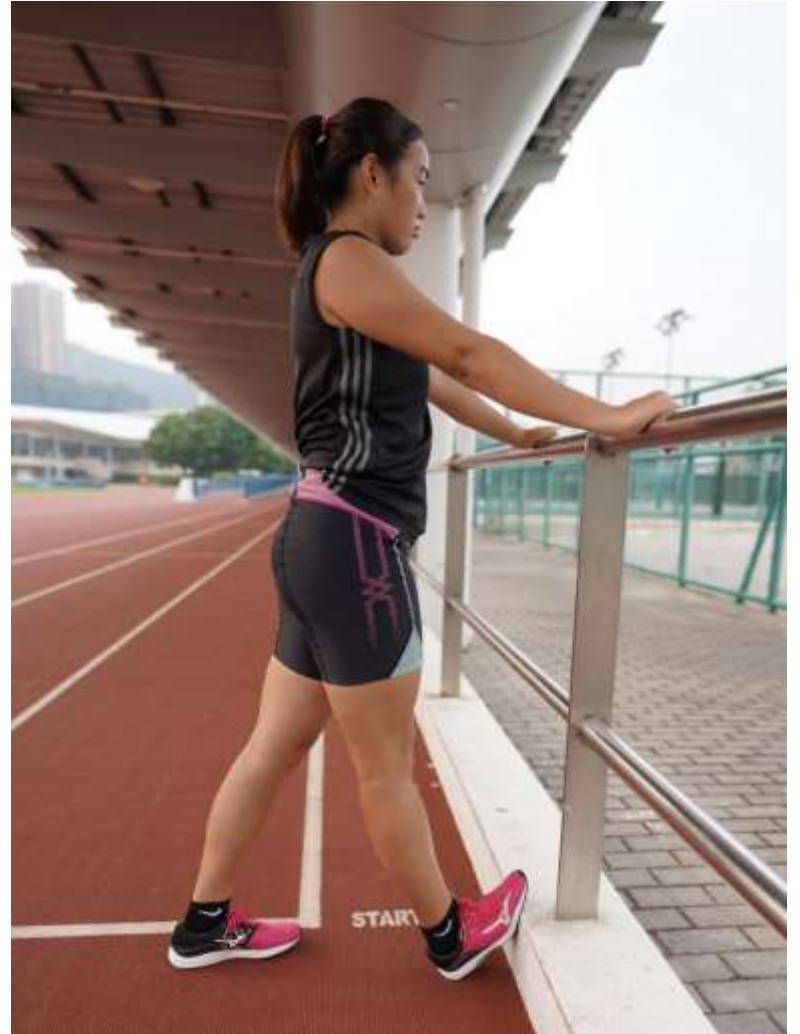


- 
- 靜態伸展 Static stretching
 - 了解所需伸展肌肉群的方向及位置
 - 確立一個穩固的姿勢
 - 動作要慢
 - 切忌彈動式伸展
 - 持續伸展15至30秒, 重覆3至4次

腓肠肌

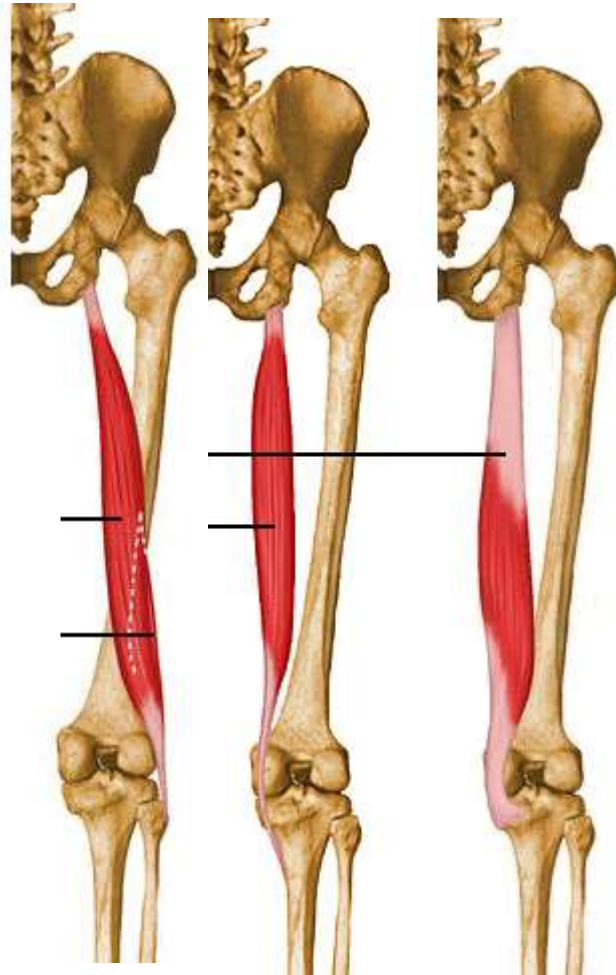
Gastrocnemius







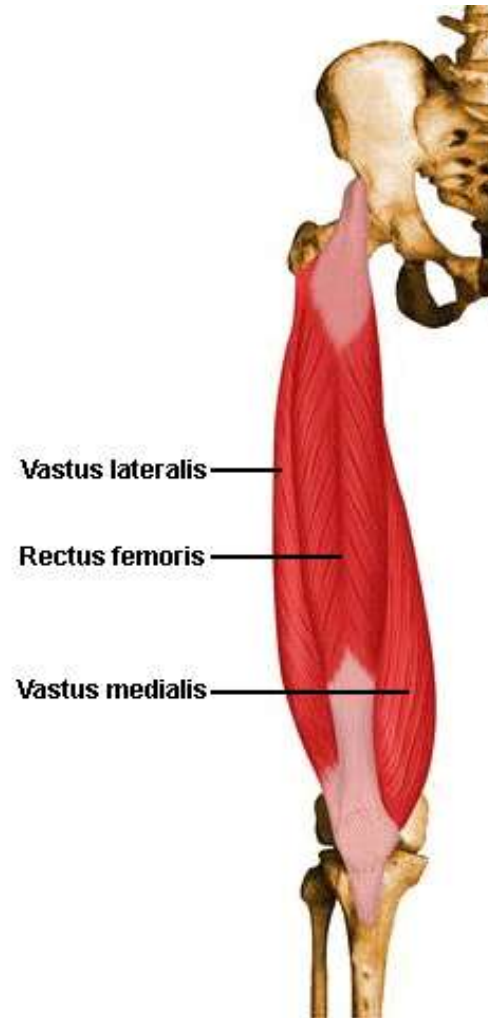
大腿屈肌群(膕繩肌) Hamstrings





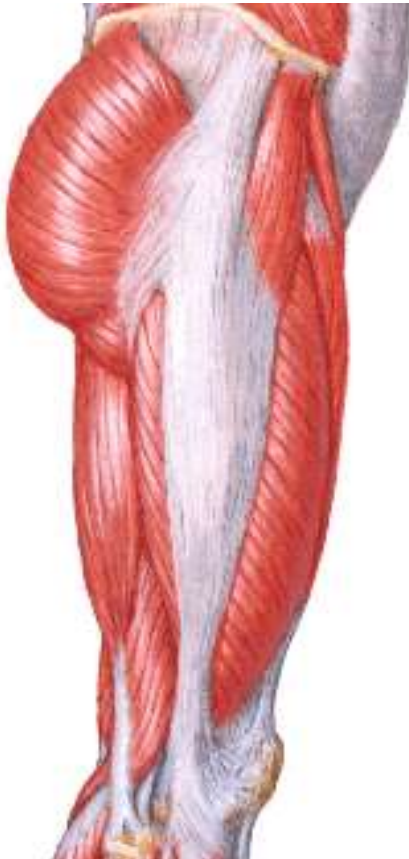


股四頭肌 Quadriceps Femoris

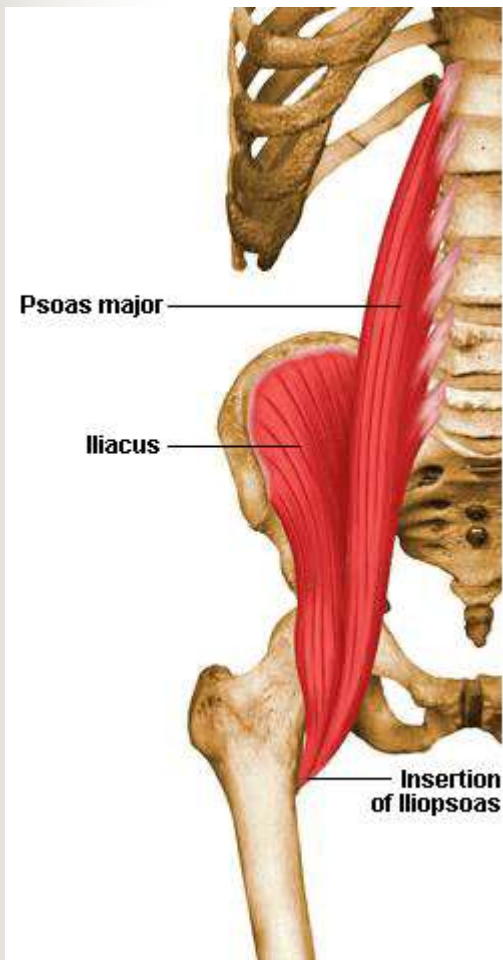




闊筋膜張肌 Tensor Fasciae Latae



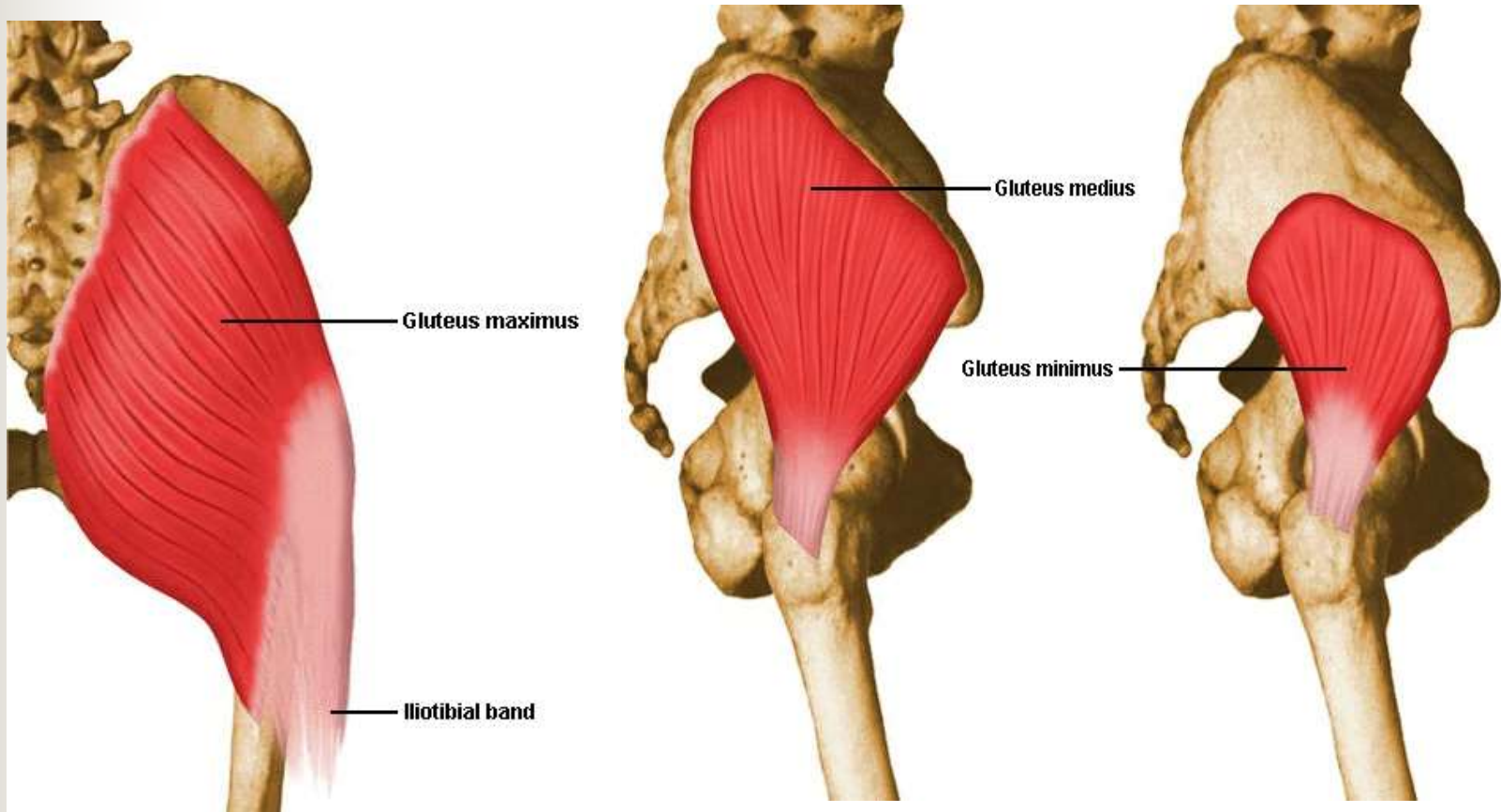
髂腰肌 Iliopsoas





臀大、中、小肌及梨狀肌

Gluteal muscles and Piriformis





泡綿滾筒運動 Foam Roller Exercises



泡綿滾筒Foam Roller

- 又名瑜珈棒、瑜珈滾輪或按摩滾筒
- 藉由滾筒於繃緊的肌筋膜上進行滾動及按壓以達至自我肌筋放鬆

A self-myofascial release technique to boost flexibility and recovery







禁忌症及需關注事項

Precautions and Containdications

- 骨質疏鬆症、孕婦、糖尿病兼有血液循環障礙、下肢靜脈曲張、受傷或腫脹的區域及關節位置上不可採用Foam Roller來進行自我按摩

Not to be used with conditions such as osteoporosis, pregnancy, diabetics, varicose vein or over joints, areas with soft tissues injury

**如有任何疑問，應向醫生及相關專業人士查詢
Please check with the medical professionals for further enquiry*



操作方式及注意事

How to use foam roller

- 藉由不同的體位，將需要放鬆的身體部位置於Foam Roller上

Place the roller under the body part

- 利用身體四肢與地面的接觸面積，來增減按壓時肌筋膜所受的力度

Use the limbs to support the body weight to reduce the pressure on the tender spot

- 
- 透過「緩慢」的滾動，尋找痠痛點，並在痠痛點的附近，來回滾動5-10次
Roll slowly 5-10 times over the area to locate the tender spot
 - 亦可在痠痛點停住（一般大約20秒），直到痠痛減緩及軟組織變軟
Stay at the tender spot for ~20s

- 
- 滾動或按壓時應盡量放鬆相關肌肉及保持呼吸

Need to stay relax and keep breathing

- 在訓練後1天內進行按壓，再搭配靜態伸展運動使能達到最好的放鬆及復原效果

Best result with rolling and stretching within 24 hours of training

硬度/大小/長短的選擇

With different sizes, length and stiffness



比目魚肌/腓腸肌 Calf Muscles





脛骨前肌 Tibialis Anterior



股四頭肌 Quadriceps Femoris



臀大肌/梨狀肌 Gluteus Max./Piriformis





闊筋膜張肌 Tensor Fascia Latae



髂脛束 IT Band







Q & A

完成就是勝利!!!

