



## QUIZ 1

### SPORTS MASSAGE & FUNCTIONAL ANATOMY

#### Questions:

1. Three muscles insert at the bicipital groove on the humerus. Which one is missing? Pectoralis Major, Teres Major and ???
2. This muscle attaches between the medial border of the scapula and the first 8 or 9 ribs, lies deep to subscapularis, draws the scapula forwards around the thoracic cage, and is sometimes referred to as the “boxer’s muscle” because of its role in a punching action.
3. What is commonly known as the “7 second test” and what is it used for?
4. What are the principles behind the directions of the hands adopted during the application of petrissage?
5. What is the collective role of the rotator cuff muscles that is important during all upper limb movements?
6. What is ‘vaso-dilation’ and how does it help during sports massage?
7. Which major hip flexor can lead to back pain and how?
8. Triceps means “three heads”. Can you identify all three?
9. What words of caution might you offer in relation to a deep and thorough massage in relation to physical exercise?
10. Quadratus Lumborum assists side flexion of the torso. What else can it do during walking?



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#### Answers:

1. Pectoralis Major, Teres Major, and Latissimus Dorsi
2. Serratus Anterior
3. The 7 second test is commonly used to check for acute trauma/inflammation before applying soft tissue techniques by applying pressure to 7 out of 10 on a scale of perceived pain/discomfort and holding for 7 seconds. If, after this time the discomfort on a 1 to 10 scale either stays the same or falls, it is considered safe to proceed. If the pain increases, the planned intervention should not be applied.
4. The 'loading' of the tissues by compression/stroking is still applied in the direction of venous return – i.e. towards the heart, but the overall direction of the petrissage technique is from proximal to distal (or away from the torso). The aim is to 'vacate' or reduce the volume of blood in the area being compressed, then releasing the pressure to allow fresh fluids into this space, followed by moving the hands distally to compress again and encourage increased blood-flow through the deeper muscle tissues.
5. Although each of the rotator cuff muscles – Supraspinatus, Subscapularis, Infraspinatus and Teres Minor are each responsible for individual upper limb movements including abduction, internal rotation, and external rotation respectively, collectively they work together to stabilise the head of the humerus during all upper limb movements, thereby maintaining the integrity of the joint.



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6. Vaso-dilation is where the diameter of the blood vessels increases, allowing greater blood-flow through these vessels. This may happen in response to touch or increased activity, leading to an increase in local temperature and pliability within the affected tissues which in turn may help with flexibility, joint range, and movement patterns.

7. Psoas Major which forms part of the main hip-flexor pair of muscles in Ilio-psoas attaches to the transverse processes, intervertebral discs, and vertebral bodies of the lumbar vertebrae, and flexes the hip during all running and kicking activities. However, if the muscle remains under tension when the lower limb is fixed – i.e. during standing, this will pull on the lumbar spine potentially increasing the lordotic curve and sometimes leading to lower back discomfort.

8. Long head – infraglenoid tubercle of scapula; Lateral Head - upper half of posterior surface of humerus; Medial Head – distal two thirds of posterior surface of humerus.

9. A deep massage of a longer duration often produces similar effects the next day as a training session, so the subject may feel lethargic and lacking in energy. It is therefore better to leave at least a full day between treatment and the next full exercise session, perhaps incorporating a full rest day.

10. It lifts the pelvis on that side which then allows the leg to move forward with the foot clear of the floor during the swing phase of walking.