

July Strength & Conditioning Research Questions

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Hi fitness folks! Do you know the answer to the July strength & conditioning research review questions? If not, you ought to subscribe to our research review service. [HERE](#) is the link in case you're not yet subscribed.

July's PDF will be sent out on Monday so make sure you're subscribed if you want to receive it. We also have back issues available for purchase [HERE](#). If you're new to S&C Research, you might wish to buy the last few and get caught up, or buy our [Background Product](#) to build a good foundation. Below is the list of questions we tackle in our review this month.

Strength & Conditioning, Power and Hypertrophy

1. Do stiff-legged deadlifts activate more hamstring muscle than the traditional deadlift?
2. Does doing arm isolation exercises before upper body compound exercises lead to greater gains compared to doing upper body compound exercises before arm isolation exercises?
3. Does using bands as accommodating resistance during the squat and bench press lead to better gains in power compared to using just straight barbell loads?
4. What is the best way to calculate the right load for sled-towing?
5. What does the research say about how stretching affects subsequent exercise involving stretch-shortening cycles?
6. Do cluster sets lead to greater gains in strength and size than traditional sets
7. Do muscles grow according to where they're most highly activated, or do they grow uniformly along the length of the muscle?
8. How does a focus on hypertrophy, strength or power affect performance gains in football players?
9. Do complex training or contrast training really potentiate jumping performance during the training session, or do they reduce it?
10. What's better for sprinting and jumping performance following a general warm-up – stretching, stretching then doing some plyos, or doing nothing at all?
11. Are early and late rate of force development differently influenced by high-velocity resistance training?
12. Is tendon and muscle hypertrophy greater after eccentric or concentric training?
13. Is respiratory muscle training useful for athletes?



Biomechanics & Motor Control

1. Which power clean variation produces the greatest power output?
2. When are the abdominal muscles most active during a clean and jerk, and which phase requires the highest intraabdominal pressure (IAP)?
3. Which is more critical for speed production when running through water – horizontal or vertical forces?
4. Is the optimum load for power output no-load (just bodyweight) for all types of vertical jump (squat jump, countermovement jump with arm swing, and countermovement jump)?
5. Wearing high-heeled shoes inhibits which muscle during forward bending movements?
6. How is knee loading different between forefoot and rear-foot strikers?
7. Is tibial shock larger or smaller upon the first attempt at barefoot running compared to when running shod?

8. How do speed and fatigue affect muscle activity during running?
9. Which hamstrings – lateral or medial – are better at protecting the anterior cruciate ligament (ACL) and stabilizing the knee, and do they change depending on the degree of knee flexion?
10. Does eye–hand coordination predict fitness in young people?
11. Why has the snatch lift world record not changed significantly in a decade?
12. Should young athletes specialize in a single sport or diversify for greater success?





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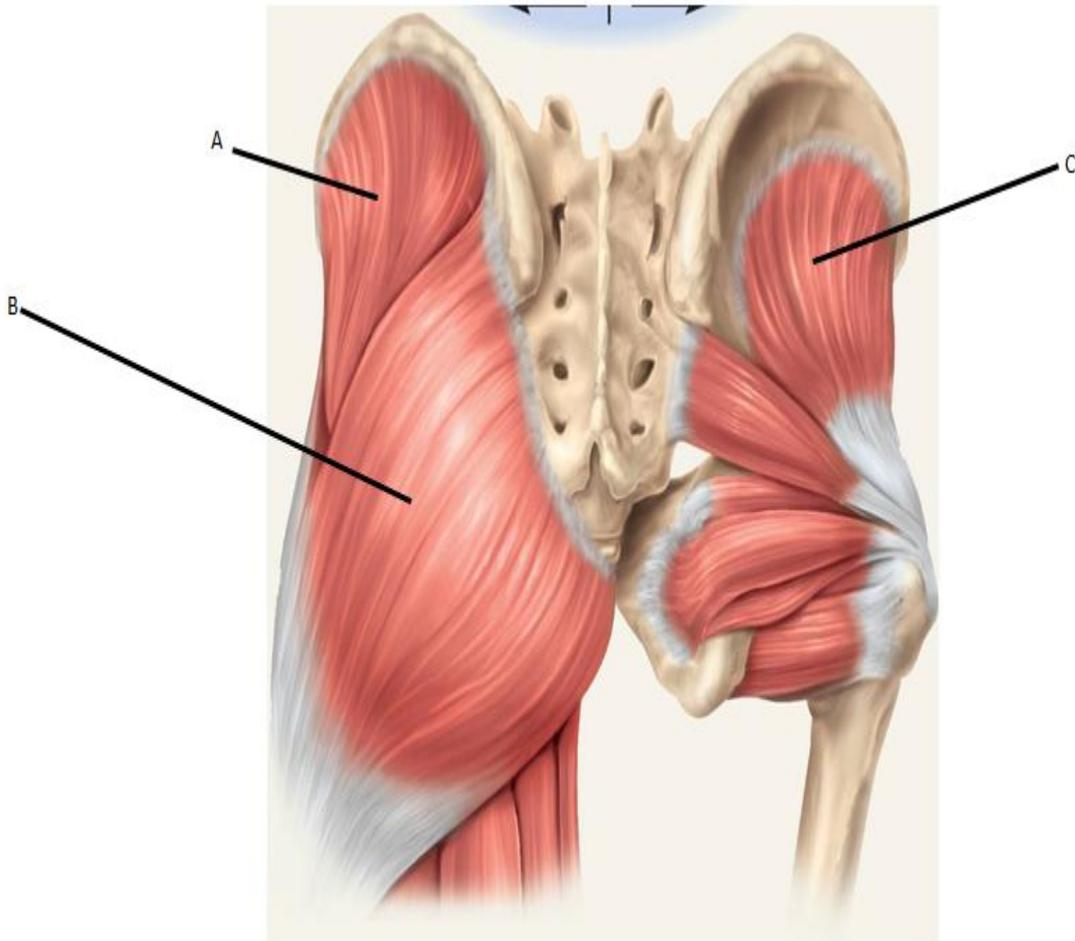
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Anatomy, Physiology & Nutrition

1. What do we know how the gluteus maximus connects to the fascia lata?
2. Are high-protein best for preserving lean mass during dieting?
3. Is a combined carbohydrate and protein drink after training better for enhancing endurance exercise performance than just a carbohydrate drink?
4. Are there different hormonal responses in lean and obese children to food and exercise?
5. Is nutritional coaching useful for increasing muscular size in elite athletes?
6. Are the effects of growth hormone treatment long lasting, or do they return to normal once treatment ceases?
7. How can insulin sensitivity and glycemic control be improved by exercise?
8. How does high intensity interval training (HIIT) affect aerobic and anaerobic fitness, and does it lead to similar improvements in fit and unfit subjects?
9. How much caffeine is needed for improving resistance exercise performance?
10. What role does the extrinsic gastrointestinal nervous system have in hunger and satiety?
11. Is heart rate variability (HRV) a useful tool for monitoring recovery in athletes?
12. Is there any evidence for blood type diets?
13. Does exercise improve hypertension in all individuals?
14. What role do hormones play in sarcopenia?
15. Are environmental chemicals a cause for concern in regards to endocrine function?

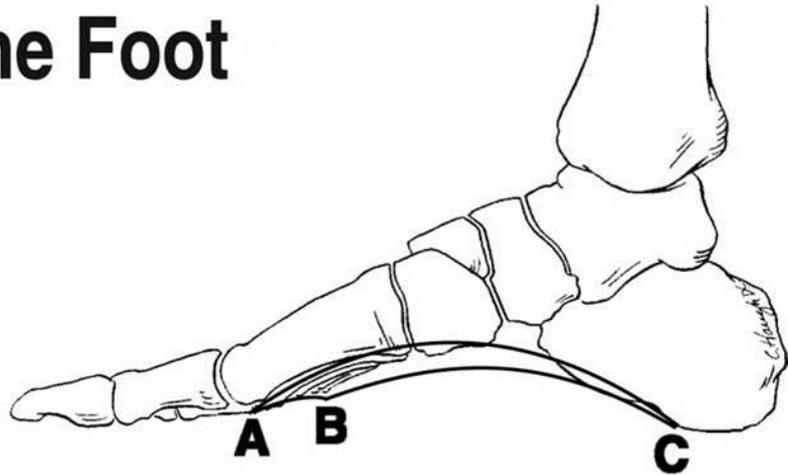
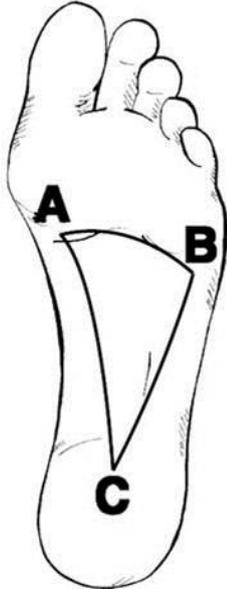


Physical Therapy & Rehabilitation

1. Does foot muscle training improve arch height and function?
2. Are there differences in running biomechanics between healthy runners and runners who have IT-band syndrome?
3. What was the contribution a century ago of Andrew Taylor Still to fascia research?
4. How do the joint angle movements differ during squatting between healthy subjects and those with low back pain?
5. How does a combination of massage and eccentric resistance differ from just massage in improving joint range of motion?
6. Is myofascial release useful for treating chronic low back pain?
7. What exercises can be used for functional performance testing prior to return to sport?
8. Is the transversus abdominis part of the local muscle system or does it function globally as other common core muscles?

9. What can be done to prevent ACL injury in young athletes?

Arches of the Foot



A-B Anterior Transverse Arch
B-C Lateral Longitudinal Arch
A-C Medial Longitudinal Arch