
你有沒試過運動完肌肉酸痛呢？想必有做過運動既都體驗過呢個現象！

運動後既肌肉痠痛只要不是韌帶撕裂、骨骼折損導致的痛楚，而是因為健身有效而引發的肌肉酸痛，這是好事，因為這代表肌肉得到了充足的鍛煉，因此需要自我修復，從而達到更強的狀態。

運動醫學上將運動引起的肌肉酸痛分為兩種：

一種是運動後疼痛立即出現，但其消失得也快，這種叫做急性肌肉酸痛。另一種是在運動後幾小時或一夜之後才出現，並伴有疲倦乏力，甚至會出現肌肉痙攣、僵硬等症狀。這種肌肉疼痛消失得比較緩慢，常常3~4天甚至6~7天之後才能完全恢復，這種症狀則稱為延遲性肌肉酸痛或運動後疲勞。我們常說的肌肉酸痛主要是指後一種，即延遲性肌肉酸痛。

肌肉酸痛與拉傷是有明顯區別的。實際上，肌肉酸痛是一種正常的、積極的生理表現。人們往往在力量訓練或一個不太適應(運動量偏大或新的運動項目等)的運動練習後，產生明顯的肌肉酸痛和不適。而這些症狀在休息一段時間後會自然消失，當再次進行同樣的運動時肌肉酸痛症狀會明顯減輕或不產生。而運動導致的肌肉拉傷就不同了，肌肉或韌帶拉傷會造成骨骼肌大面積的病理性改變，如細胞變性、細胞壞死等等，不僅影響繼續運動或訓練，還可能會帶來較嚴重的後果。

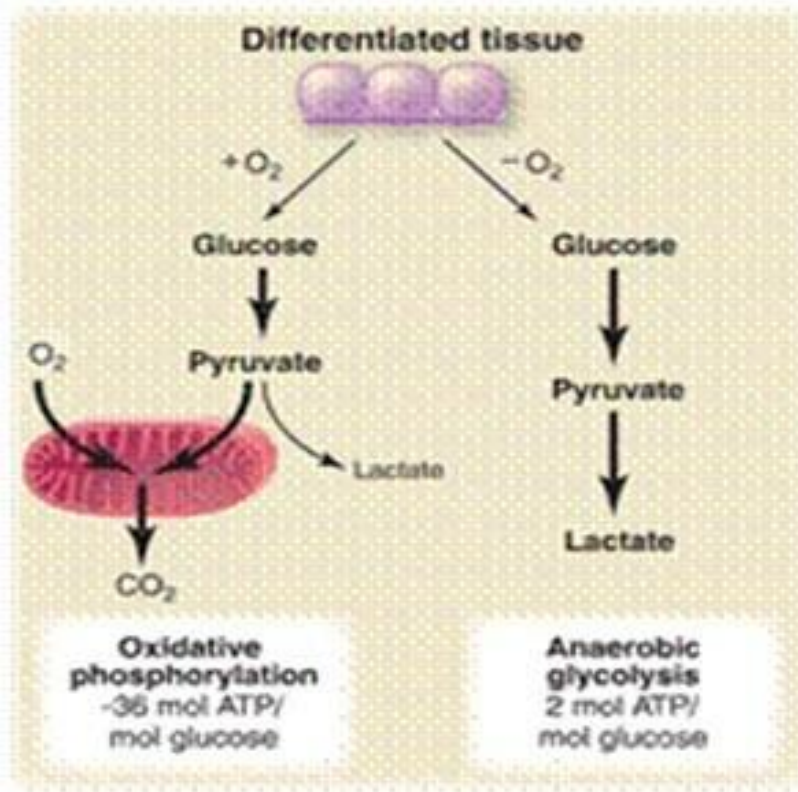
為何肌肉會酸痛？

肌肉酸痛產生的機制較複雜，主要包括以下幾個方面：

- ① 酸堆積
- ② 肌肉痙攣
- ③ 肌纖維或結締組織損傷
- ④ 其他因素
(如組織間滲透壓產生變化或急性發炎等，也可造成肌肉酸痛。)

乳酸是怎樣產生的？

人體運動是需要能量的，如果能量來自細胞內的有氧代謝，就是有氧運動；但若能量來自無氧酵解，就是無氧運動。有氧運動時葡萄糖代謝後生成水和二氧化碳，可以通過呼吸很容易被排出體外，對人體無害。而無氧運動時葡萄糖酵解產生大量乳酸等中間代謝產物，不能通過呼吸排除，就形成了乳酸堆積。



什麼是肌纖維或結締組織損傷？

當我們循序漸進的增肌鍛煉負荷時，就會使肌肉造成局部肌纖維及結締組織的細微損傷，甚至造成部分肌纖維的痙攣。但不要緊張，這種損傷是可接受的，而且具有積極的增肌意義。事實上，這種肌纖維損傷及痙攣是局部的、微觀的，肌肉仍能完成運動功能，但存在酸痛感。酸痛後，經過肌肉內局部細微損傷的修覆，肌肉組織變得較前強壯，以後同樣負荷將不再發生損傷。值得注意的是這種修覆是需要休息和蛋白營養的補充才能做到。

總之，肌纖維細微拉長的損傷造成的肌肉酸疼，很好地解釋了為什麼我們要增肌就需要不斷的循序漸進增肌鍛煉負荷的原因，也是很多增肌愛好者追求鍛煉後肌肉酸疼膨脹感的原因。



There are some ways to eliminate muscle soreness

1. Stretch

Static stretching exercises such as walking, yoga, swimming can stretch, tightness of the muscles no longer cause pain. And the aforementioned stretch massage, heat therapy can promote blood reflux can still help the muscles relax. But to avoid such as weightlifting and fitness movement is too strong to avoid such counterproductive.

2. Massage

Massage can promote blood reflux, help muscles relax. Own bare hands gentle massage, pressing, massage sore site, or use an electric massager may also help relieve; if the budget, looking for professional sports rehabilitation division massage, the better.

3. To replenish their energy

Eat immediately after exercise some high-carbohydrate, high-protein foods, such as lean meat, bagel, toast peanuts, etc. can help to retain muscle protein, in addition to enhanced muscle soreness also mitigation effect.

4. Appropriate rest

After a lot of training or competition, muscle fibers and inevitably damaged tissue, bleeding, or swelling of the situation, before the soreness should disappear sufficient rest, as appropriate, the amount of training, do not over-practice, rest in order to run more long-term way

5. Hot and cold therapy

Alternating hot and cold method is a blood vessel movement, purpose is to promote blood circulation, and achieve rapid removal of debris and inflammatory substances, eliminate swelling and other functions; processes to heat,

cold, hot, cold mode, the hot temperature of about 38 to 40 degrees, the temperature is not too high, to avoid burns for approximately 4 to 6 minutes; cold temperature of about 10 to 16 degrees, for about 1 to 3 minutes, cold note that the purpose of vasodilation caused by heat



mitigation, rather than acute injuries ice during the short time period of time than the heat. Alternating hot and cold about 30 minutes total time.

6. Mild exercise

If you continue to feel physical pain, you can suspend training 1-2 days, and then begin to start to step on a fixed exercise bike, step on a relaxed pace for 15-30 minutes, slowly return speed to reduce pain. When the body is ready, just for five, Liucheng force run 45-70 minutes.

運動訓練需要適量，更要配合足夠休息和均衡飲食。距離陸運會還有五十多天，你，又開始為你的目標努力了嗎？

~ REALX TIME ~

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Answer:

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3	2	8	9	4	6	7	5	1
9	4	2	7	3	8	1	6	5
5	1	3	2	6	4	8	7	9
7	8	6	1	5	9	3	4	2
2	3	5	6	9	7	4	1	8
1	6	9	4	8	3	5	2	7
8	7	4	5	2	1	9	3	6



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