



Impact Of Sore Muscle After Strenuous Exercise And Their Preventions

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Abstract

Delayed onset muscle soreness (DOMS) is the phenomenon of muscle pain, muscle soreness or muscle stiffness that occurs in the day or two after exercise. DOMS is nothing but ultramicroscopic tearing of muscle fibres which depends on the intensity and length of exercise and exercise type. It is most frequently felt during the beginning of a new exercise type. It is most frequently felt during the beginning of a new exercise program, changing exercise routine, or suddenly increasing the intensity of exercise routine, number of people thinks that cooling down by exercising at a very slow pace after exercising more vigorously help to prevent muscle soreness; it doesn't stitching does not prevent soreness either, since post- exercise soreness is not due to contracted muscle fibres. The objective of the present studies is to find ways and means to effectively deal with muscle soreness. Application of preventive strategies and curative aspects are very good tools to prevent muscle soreness.

Keywords: muscle soreness, Strenuous Exercise, intensity, Preventions

Introduction

The exact cause of delayed on set muscle soreness is unknown. Gradually increasing discomfort that occurs between 24 hours to 48 hours after exercise is called delayed onset muscle soreness (DOMS)(1992 by Theodore Hough) or muscle fibre. It is described as a consequence of mechanical and metabolic stress placed on skeleton muscle fibres. DOMS occurs as a result of microscopic tearing (micro trauma) of the muscle fibres and connective tissues. The extent of the tearing depend on the type of exercise and how vigorously the exercise is performed. Any new moments that a person is not accustomed to, may lead to DOMS.

It is most frequently the beginning of new exercise program, changing exercise routine or suddenly increase the duration or intensity of exercise routine. DOMS describe the phenomena of muscle pain due to ruptures within muscle, muscles soreness or muscle stiffness that occurs in a day or two after activity. It is one of the temporary changes and symptoms associated with exercised include muscles damage. Such change includes decrease muscles strength and range of motion results swelling of muscle. It is the pain and stiffness felt in muscles several hours to days after sever exercise.

Characteristics

DOMS is a term experience by all individuals, no matter their fitness level. If an individual has recently begun exercising, or has just returned to exercising after a long break, they main Sun may soon become stiff and sore. This is a normal psychological responses to increase exertion on any skeleton muscles. Muscle pain is not felt when the muscle is at rest, but rather when it is stretched, contracted or put under pressure.

The intensity of the symptoms will be increase for the first 24 hours, reaching their peak within 72 hours; it's subsides and disappears after a few days. Not all symptoms may be present and they are independent of each other. The extent and duration of DOMS may Vary from person to person and they are Extent of DOMS is often related to amount of resistance placed on the muscle during the prior exercise.

Characterized by an aching, dull pain in the affected muscle, typical symptoms may include such as muscle tenderness, stiffness and/or soreness, it may increase to the level of muscle pain (which in medical term said as-muscular mechanical hyperalgeria), swelling (may be considered a cause and contributed to soreness), loss of mobility, reduce range of motion, resistance to stretching and loss of muscles strength. Any changes to your routine exercise can lead to timely injuries in our muscles fibres and connective tissue.

Objectives

The purpose of the present study is to find ways and means to effectively deals with sore muscle.

Causes of sore muscles

Due to extreme physical exertion, fibres in the muscles tear and the body's defense mechanism sends fluid into these areas- causing swelling. The swelling triggers the pain, stiffness and soreness is felt. The body, however, repairs the injured muscles and it grows back stronger. The main and ultimate thought is to be result of micro trauma -mechanical damage being exercised. DOMS a result of microscopic tearing of muscle fibres depends on intensity and length of exercise and exercise type. Any moment that are not accustomed can lead to DOMS, Examples-bring down stairs, running down hill, lowering weights, download motion of squats and push -up, muscle tear etc. Routine exercise can lead to tiny injuries in our muscles fibres and connective tissue. Joints feel sore and achy called osteoarthritis - inflame condition as you get older.

While actively participating in the exertion as when sprain, strain or a muscles and immediate pain is felt. It takes at least 8 hours to 24 hours to fell this type of soreness. It is assumed that muscles soreness is caused by a build up of lactic acid in muscles. But now it is understood that lactic acid has nothing to do with because from the time you exercised, yet the lactic acid build up only lasts in your muscles for at most an hours or two after your workout is complete. Cool-down periods get up the removal of lactic acid from muscles. Lactic acid is extremely important because it allows the body to convert glycogen to energy without the need for the presence of oxygen. Muscles soreness is caused by damage to the muscles fibres themselves. Muscles biopsies after hard exercise show bleeding and disruption of the Z- band filament of muscles sacomere that hold muscle fibres together as slide over each other during a contraction. This may physiologically cause that actin and myosin cross linkage to separate prior to relaxation but it does not cause muscle soreness.

Treatment for sore muscles

A significantly effective treatment method has not yet been established to accelerate the recovery from DOMS and there is no one simple way to treat. A variety of treatment strategies may assist in week consult your physician. In the past, gentle stretching recommended to reduce exercise. (Australian researchers 2007)

Preventions

Warm -up- warm up thoroughly before activity before exercising. Remember to warm up the body with simple movement like arm swings and marching on the spot, or start walking slowly and gradually pick up the pace.

Progress slowly- the most important prevention method is to gradually increase exercise time and intensity. Do not stop exercising completely. The fact that you are experienceing muscles soreness after a workout is a sign that your muscle have been stretched and are slowly getting stronger. By using your muscles (with light activity), you can speed up the elimination of lactic acid build up.

Cool down- cool down with gentle stretching after exercise. Stretch your muscles for about 10 minutes after vigorous workout to prevent sore muscle.

Have an electrolyte- carbohydrate replacement drink like Gatorade (energy drink).

Start a new weight training routine with lightweights and high repetition (10-12) and gradually increase.

Avoid making sudden major changes in the type of exercise and the amount of time that exercised.

Physical trainer- take the help of a physical trainer/therapist, who can show you how to exercise safely and how to keep good posture so that you don't get injured or worsen joint pain, if there is inability to start a workout program that is safe and effective and if possible.

Remedies

1. Active recovery-in this performing easy low impact aerobic exercise technique has to be used as a part of cool down which increasing blood flow with diminished muscle soreness.

2. Streatching- streaking gate blood flowing through the area diminishing pain and speeding up recovery. Remember to hold stretch for at least 10 second and not to bounce.

3. Yoga exercise (instructor is necessary) there is growing support that performing yoga may reduce DOMS. It can help stretch tired and achy muscles and increases flexibility, concentration and strength which can be a positive result. After a tough workout, sore muscles can leave you feeling tight, tense, and just plain uncomfortable. If you are up for some active recovery, this quick yoga sequence is some of the best medicine out there for tired muscles. When you have completed the short and effective session, your body will fell open up and energized yet calm. It offers a serious stretch to your whole body-- especially those tight sports that need it the most!

4. R. I.C.E. treatment-- The standard method of treating acute injuries. If your soreness is particularly painful. Direct icing or ice can help reduce swelling, soreness and lessen the aches, if it is applied within first 24 hours. If it's an acute injury, or if one notices swelling of the muscles are joint area and it feels warm, wrap an ice pack in a thin towel and place it on the sore muscles for about 15 minutes.

5. Go for a massage- tension in stress can affect a person's body and can cause stiffness and pain in a person's neck and back. Whole body massage will help to relax very tight sore muscles and relieve muscles aches. It may help reduce reported muscle soreness and reduce swelling. Preferably get massage done by an expert.

6. Hot and old shower-- which may loosen tight muscle and boost blood circulation, providing temporary relief. Shower with give relief to the sore muscles as well as healing process and also your blood vessels to open and close which flushes lactic acid out from muscles but has no big impact on DOMS. It is recommended that the shower be alternate with an in with cold water.

7. Rosemary (herb) can help remedy for muscle aches which have anti- inflammatory properties which reduce soreness and speed up the healing process. Soak a cloth in the Rosemary and place the cloth over aching muscle.

Conclusion

Just because you're not sore doesn't mean you are muscle aren't inflamed and growing. Likewise, sore muscles don't mean you had a good workout. People just assume that hard workout=sore muscles=effective. But that's not the case. It's Casey where correlation is mistaken for causation. Muscle soreness or delayed onset of muscle soreness is inevitable for active people. Proper knowledge of its cause, prevention strategies and remedial measures can reduce the inconvenience encounter.

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