Is rest the best relief for muscle soreness from intensive training? [1]

Dear Alice,

My husband is in an intensive training program to become a firefighter. He trains Monday – Friday. As a consequence, he is sore everyday. I know the best remedy for sore muscles is rest... but he doesn't get any. Is there anything else he can do?

— Concerned wife

Answer

Dear Concerned wife,

Unfamiliar or newly strenuous activity, among other factors, can contribute to delayed aches and pains after exercise. Some intensive regimens, such as your husband's, do not accommodate for a sufficient break to help the muscles to recover. You're 100 percent right — rest is most helpful in overcoming muscle soreness.

Firefighting is a physically demanding occupation and it's certain the training is intense and exhausting. It's likely that your husband is performing exercises that incorporate a full range of motion involving two types of muscle contractions. Concentric contractions occur when muscles shorten as they overcome resistance. Think of a bicep curl — raising the weight up produces a concentric contraction. Eccentric contractions happen as muscles act to oppose gravity. In this phase, the muscle is actually lengthening. During a bicep curl, think of lowering the weight — this is the eccentric contraction. It is well documented that the eccentric contractions during exercise contribute to the soreness felt after a workout. The tendons and some connective tissue of stiffer muscles are unable to absorb the stresses of the lengthening part of exercise.

People prone to stiffer muscles may be more susceptible to muscle damage after physical activity than others. They may benefit from warming up first, as this has been shown to reduce symptoms of additional damage, and may possibly protect against further soreness. It's a good idea to start by elevating the pulse rate slowly with some light aerobic activity, such as a brisk walk or easy jog. It's best to stretch once the body has had a chance to warm up a little. Static stretching (i.e. holding a stretch in place for several moments, without bouncing back and forth)
can help get muscles ready for any type of training. There is some controversy regarding the usefulness and safety of certain stretches, so it would be a good idea for your husband to get tips from a health care provider or personal trainer on how to stretch. The related Q&As provide some tips as well.

Hydration and nutrition can also play a role in helping the body heal from activity of any intensity. Dehydration is a frequent contributor to soreness and it's good for your husband to be hydrating before, during, and after training. Water is the best bet for quenching thirst and a low sugar sports drink can help replace electrolytes for prolonged periods of training. A well-balanced diet with fruits, vegetables, plenty of protein, and complex carbohydrates can help the body perform under intense conditions. Potassium can also help reduce soreness, so your husband may want to consider adding a banana or two to help with recovery. Avoiding excessive alcohol or caffeine use can also prove beneficial.

In the mean time, massage can feel really good to fatigued muscles. So if you're inclined, a relaxing rubdown may be greatly appreciated by your tired, aching husband. To be fair, the two of you could trade massages so you can each relax and recover from the day!

Alice!

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