

# SORE POINT

If you are achy after a workout, it could mean a range of things, says **Melinda Wenner Moyer**



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**P**eople often ask, "If I'm not sore after I exercise, did it even count?" There's a pervasive belief among fitness enthusiasts that if you aren't sore after a workout, you're not getting into shape or working your muscles hard enough to build strength.

But soreness is not equivalent to progress, fitness experts say. And constant soreness is not something to strive for.

"A common misconception is that soreness means a workout was effective," said Cedric Bryant, an exercise physiologist and the president and CEO of the American Council on Exercise. "While some soreness is normal, it is not a requirement for muscle growth."

## What sore muscles mean

When your muscles feel sore a day or two after exercise, it's typically because of microscopic tears in your muscle fibres that can lead to inflammation and pain, said Laura Richardson, an exercise physiologist at the University of Michigan School of Kinesiology in the US.

As your muscles repair during the days afterwards, the pain dissipates, she said.

Muscles also often grow stronger after soreness, but that discomfort is certainly not required for muscle growth, Bryant added. Many athletes do not get sore after workouts, even when they are continuing to improve their fitness and build muscle.

"This does not mean the workout was ineffective," Bryant said. It is usually a sign that their muscles have adapted to a regular training routine and have become "more efficient at handling the workload", he said.

Instead of using soreness as a metric for effectiveness, monitor your progress through improvements in strength, endurance or visible muscle changes, Bryant said. If you're able to lift progressively heavier weights or increase the length or intensity of your cardio workouts, for instance, that's a positive sign.

Excessive soreness can even be counterproductive, Bryant

added. Because it's hard to exercise through pain, it can worsen your athletic performance or increase your risk for injuries, particularly if you try to compensate for sore muscles by moving in unnatural ways. It's beneficial to give your body time to repair itself, he said.

## What to do when you're sore

If you feel sore after a workout, consider easing up on your exercise routine for a few days. Make sure to hydrate — with water, or if you had a particularly long or vigorous workout, an electrolyte drink — because dehydration is associated with cramping, said Dr Vijay Jotwani, a sports medi-

cine physician at Houston Methodist Hospital in Texas, US. If your soreness is bad enough that it interferes with your daily functioning, it's fine to take a dose of anti-inflammatory medicine, such as ibuprofen, he added.

Gently massaging your sore muscles, such as by kneading or stroking them with your hands for 10 to 15 minutes, may also help, Richardson added. In a 2018 systematic review and analysis of 99 studies, researchers found that massage was one of the most effective ways to reduce the pain and fatigue of exercise-related muscle soreness, but more research on the topic is needed. Wearing compression garments around sore muscles and taking 10 to 15-minute-long

cold-water baths were also effective, the scientists found.

If you experience severe muscle pain or weakness hours or days after a particularly intense workout, or if your urine darkens to a brown colour or you aren't urinating much at all, that could be a sign of a rare, potentially life-threatening condition called rhabdomyolysis, and you should go to the emergency room, Dr Jotwani said.

For muscles that are only slightly tender or stiff, it's OK to work them again with the same form of exercise that caused the soreness in the first place, but reduce the intensity of your workout, Bryant said. If the soreness is a little more intense, meaning you can still move but with

some discomfort, he suggested more gentle movements, such as walking, swimming or yoga — or low-intensity resistance training, such as lifting light weights or doing body weight exercises, to promote blood flow and reduce stiffness.

It can sometimes help to "keep moving through the soreness", even if you're moving just a little bit, Richardson said.

If your muscles are painful to the touch, you have a limited range of motion or your strength is very reduced, Bryant said, it's best to allow the muscle more time to recover and take a day off.

"A good rule of thumb," he added, "is to listen to your body."

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