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DO YOU ACTUALLY WANT SORE MUSCLES? (DOES IT MEAN MUSCLE GROWTH?)



If you're into weightlifting, you've become very acquainted with sore muscles. You've had the "is this just muscle soreness or am I actually dying?" thoughts.

And maybe you've even gone full Stockholm syndrome and now crave the daily debilitation.

Well, I've been there, I've learned some things, and now I'm going to pass on those lessons. You see, like many people, I used to think muscle soreness was pretty black and white.

I assumed that sore muscles were a sign that I was doing something right, and the more sore I was, the more effective my workouts were. (And as a corollary, I worried that workouts that produced little soreness also produced little results.)

Well, it turns out it's not that simple.

Years ago, I used to do workouts that produced a tremendous amount of muscle soreness...and I made mediocre (at best) gains. After dramatically changing the way I trained, however, I experienced far less muscle soreness but made far better progress.

WHY DO MUSCLES GET SORE?

It was once believed that muscle soreness was caused by a buildup of lactic acid.

We now know that's not true.

It was then hypothesized that it was caused solely by microscopic tears in the muscles. This makes more sense mechanically, but we now know that there's more to the story than muscle damage alone.

Muscle damage ("microtears") certainly plays a role in the physiology of muscle soreness, but there are other factors involved.

We also know that muscle soreness is influenced by other factors including your training protocol, diet, recovery regimen, genetics, and more. This helps explain why some people get more sore than others from the same workouts.

So, as with muscle growth, we still have much to learn about what is really happening when we feel our muscles are sore.

Fortunately, however, we do know enough about how soreness relates to muscle growth to gain some practical insights about how to make better gains.

WHAT IS DELAYED ONSET MUSCLE SORENESS (DOMS)?

Delayed onset muscle soreness (also referred to as DOMS) is exactly what it sounds like: The muscle soreness that hits you a day or two after you work out.

It's worse for people new to resistance training, some exercises produce more DOMS than others, and, thanks to the "repeated bout effect," it's mitigated by repeated performance of the same types of exercise.

Interestingly, research shows that the eccentric (lengthening) phase of a movement causes more muscle soreness than the concentric (contraction) phase. This applies to weightlifting, of course (which anyone who does a lot of heavy "negative" reps can attest to), but to other activities like running as well.

Again, the exact mechanisms behind this aren't fully understood, but it gives us enough to segue into the next question on most weightlifter's minds...

DOES MUSCLE SORENESS MEAN MUSCLE GROWTH?

I used to think that perpetual muscle soreness was simply a price you had to pay to build muscle. In time, I almost thought of it as a badge of honor. Well, I was wrong.

In fact, there is, in a way, an inverse relationship between muscle soreness and muscle growth. That is, the more sore you get from your workouts, the less muscle you're probably building over time.

To understand why, let's quickly review the three primary drivers of muscle growth:

01. Progressive overload - This refers to increasing tension levels in the muscle fibers over time.
02. Metabolic stress - This refers to pushing muscle fibers to their metabolic limits through the repetition of actions to muscular failure.
03. Muscle damage - This refers to actual damage caused to the muscle fibers by high levels of tension.

When we're talking muscle soreness, we're most interested in door number three—muscle damage—and the assumptions that many people make it about:

- ✓ Muscle damage is vital to muscle growth.
- ✓ Muscle soreness is a reliable indicator of muscle damage.

- ✓ Hence, muscle soreness is associated with muscle growth.

Let's take a closer look at these beliefs.

First, research shows that muscle damage contributes to muscle growth but isn't a requirement. (That is, workouts that cause little to no muscle damage can still result in muscle growth.)

Furthermore, while a certain degree of muscle damage can accelerate muscle growth, too much compromises it.

Both too little and too much damage is bad and in the middle is an optimal "sweet spot."

Further complicating matters is the fact that the degree of muscle soreness you experience after workouts isn't a reliable indicator of the degree of muscle damage (and muscle growth) produced.

In other words, a high or low amount of muscle soreness doesn't necessarily reflect a high or low amount of muscle damage or muscle growth.

There are several other observations that serve as further evidence of the disconnect between muscle soreness and muscle building:

- ✓ People that train infrequently build far less muscle but experience far more muscle soreness than those that train more frequently.
- ✓ Muscle soreness generally decreases as training frequency increases, which can accelerate muscle growth.
- ✓ Muscles like the shoulders and calves generally don't get very sore from training but can grow fairly easily.

So, the bottom line is this: Some people experience more or less muscle soreness (DOMS) than others, but it's not a prerequisite to or reliable sign of muscle growth.

The goal of your training is progression, not soreness.

CAN YOU WORK OUT WHEN YOUR MUSCLES ARE SORE?

Yes.

Despite what you've probably heard, training sore muscles doesn't necessarily hinder recovery and prevent muscle growth.

That said, we recall that, regardless of the presence or absence of muscle soreness, intense workouts do cause muscle damage that must be repaired before the muscles are ready for another round.

That's why training too intensely too frequently can impair your gains.

HOW TO GET RID OF SORE MUSCLES

If you're training, eating, and recovering properly, you probably won't suffer from bone deep, agonizing muscle soreness.

That said, a certain degree of tenderness is inevitable, and your experience with it may be worse than others'.

That's why I want to cover several things you can do to reduce muscle soreness and, in some cases, speed up recovery as well.

Massage

Research shows that massage is an effective way to reduce DOMS.

Foam Rolling

A study conducted by researchers at Charles Sturt University found that foam rolling reduces the severity of DOMS and increases range of motion.

Active Recovery

Active recovery is light exercise that is far easier than your normal routine. Examples are yoga, walking, bicycling, and swimming. Research shows that active recovery can help reduce muscle soreness from your more intense training.

Take the Right Supplements

Most supplements related to muscle recovery and muscle building are worthless.

That said, I do like (and use) two:

01. Creatine

Creatine is the most well-researched molecule in all of sports nutrition.

Hundreds of clinical studies have been done on it and the benefits are clear:

- ✓ It helps you build muscle faster.
- ✓ It helps you get stronger faster.
- ✓ It improves anaerobic endurance.
- ✓ It improves muscle recovery.

02. L-Carnitine L-Tartrate

Carnitine is a compound that your body produces from the amino acids lysine and methionine. It plays a vital role in the generation of cellular energy. L-tartrate is a salt used to increase the absorption of other nutrients.

Research shows that supplementation with L-carnitine L-tartrate reduces exercise-induced muscle damage and muscle soreness and improves muscle repair.

This is why I included it in my post-workout supplement RECHARGE.

THE BOTTOM LINE ON SORE MUSCLES

Muscle soreness isn't nearly as important as many people think. It's more of a sign that you subjected your body to something it isn't used to or that you simply did an exercise known to cause more soreness than a sign of an "effective workout."

So don't worry if your workouts don't make you sore. It doesn't mean you're not building muscle.

Don't do workouts just because they make you very sore, either. They won't necessarily help you build muscle faster (in most cases, the opposite will probably be true).

Focus on training hard, eating right, recovering fully, and you'll reach your goals, sore or otherwise.

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