

# Why You Should Never Take Painkillers Before Working Out

Keep this in mind next time you head to the gym with sore muscles  
 BY SAMANTHA LEFAVE FOR WOMEN'S HEALTH July 25, 2016

When you work out regularly, you're bound to have some aches and pains. And it's only natural to want to keep them at bay.



After all, if you're feeling sore before hitting the gym, there's no way you're going to be able to perform your best, right?

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"Painkillers affect your entire body, not just the part that hurts," she says. "This means that they may suppress your body's ability to respond to and recover from exercise properly."

## Your Body on Ibuprofen

When you experience aches or soreness, the tissues in your body are producing a group of lipid compounds called prostaglandins.

These travel through your blood to the brain, and act as signals that cause swelling in your tissue (a.k.a. [inflammation](#)) and [fever](#). These prostaglandins are regulated by COX enzymes.

When you take a non-steroidal anti-inflammatory (NSAID) like Advil/ibuprofen or Aleve/naproxen, you're blocking the two types of COX enzymes required for prostaglandin production, which essentially reduces the inflammation and fever, says Speaker.

But COX enzymes also play a critical role in protecting your stomach and intestinal lining. So when you block those enzymes, you're putting your stomach at risk.

A 2012 [study](#) found that ibuprofen can aggravate exercise-induced injury in the small intestine and cause gut barrier dysfunction in otherwise healthy athletes.

Plus, a recent [study](#) tested the impact of [ibuprofen](#) on performance that was impaired by muscle soreness.

Researchers brought 20 healthy distance runners into a lab 48 hours before and 48 hours after [exercise](#) that caused [muscle soreness](#) in their legs. In the midst of maximal soreness, half of the subjects were given 1.2 grams of ibuprofen an hour before exercising, while the other half received a placebo pill.

They found that ibuprofen did not reduce the effect of muscle pain on performance—meaning people weren't able to work out any better due to their pain pills. The meds didn't help alleviate the negative effects we often associate with muscle soreness, like slower times and less reps.

So while the ibuprofen can help relieve the inflammation itself, it's better to just take the pill after your workout, not before it.

### **Why Acetaminophen Isn't Any Better**

Taking a pain reliever like [acetaminophen](#)—a.k.a. Tylenol—before you exercise can also mess with your body's ability to regulate temperature, says Speaker.

As you work out, your body naturally uses more energy and raises your body's temperature—which is completely normal.

But “through its inhibitory effects on the temperature regulation system in the brain, Tylenol may interfere with your body's ability to properly regulate temperature,” says Speaker.

When that happens, it can also lead to [thyroid issues](#).

Not to mention that acetaminophen isn't going to do you any good when it comes to easing inflammation-induced muscle soreness.

“What makes Tylenol unique is that it isn't really able to block COX enzymes in the body; instead it works more in the central nervous system,” says Speaker. “That's why it's best for reducing a fever. It does not possess strong anti-inflammatory properties, so Tylenol is great for [headaches](#) and fever, but not so great for muscle soreness and injury.”

### **The Bottom Line**

If you're in enough pain to consider a pill in the first place, it's important to ask yourself if you should be exercising at all, says Speaker.

“Oftentimes the pain associated with a fever or soreness is purposeful and not meant to be dampened,” she says. “Fever helps kill pathogens and soreness is intended to remind you to rest and recover versus train. Ignoring those can be potentially harmful to your health.”