

# Exercise helps us tolerate pain

By Gretchen Reynolds, New York Times

Regular exercise may alter how a person experiences pain, according to a study. The longer we continue to work out, the new findings suggest, the greater our tolerance for discomfort can grow.

For some time, scientists have known that strenuous exercise briefly and acutely dulls pain. As muscles begin to ache during a prolonged workout, scientists have found, the body typically releases natural opiates, such as endorphins, and other substances that can slightly dampen the discomfort. This effect, which scientists refer to as exercise-induced hypoalgesia, usually begins during the workout and lingers for perhaps 20 or 30 minutes afterward.

But whether exercise alters the body's response to pain over the long term and, more pressing for most of us, whether such changes will develop if people engage in moderate, less draining workouts, have been unclear.

So for the study, which was published this month in *Medicine & Science in Sports & Exercise*, researchers at the University of New South Wales and Neuroscience Research Australia, both in Sydney, recruited 12 young and healthy but inactive adults who expressed interest in exercising, and another 12 who were similar in age and activity levels but preferred not to exercise. They then brought all of them into the lab to determine how they reacted to pain.

Pain response is highly individual and depends on our pain threshold, which is the point at which we start to feel pain, and pain tolerance, or the amount of time that we can withstand the aching, before we cease doing whatever is

causing it.

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