

It's not you, it's your workout

by: Jill Barker

All is not equal when it comes to reaping the benefits of exercise, a fact researchers have known for years. But that's not the only phenomenon observed by exercise experts charting the individual effects of working up a sweat. For a small number of exercisers, their after isn't any better than their before.

Individual response to a given workout can be remarkably diverse, as demonstrated by one of the first studies to highlight the trend. Results garnered from 10 sets of twins reported an average 12 per cent increase in VO2 max (the maximum amount of oxygen a person can use during intense exercise) after a 20-week aerobic conditioning program. Looking beyond the mean, however, the researchers noted that some of the twins experienced a whopping 41-per-cent increase in aerobic power while others failed to experience any quantifiable improvements in aerobic fitness.

Another study, this time tracking changes in strength after a 12-week muscular conditioning program, noted an average improvement of 54 per cent among all 585 study subjects, with the high achievers experiencing a 250 per cent boost in strength and the low achievers left with absolutely nothing to show for three months spent pumping iron.

It's estimated that seven to 10 per cent of study subjects are "non-responders," a clique no one wants to be part of. Yet, there are members of the research community who feel the label is misunderstood, especially since so-called non-responders have been known to respond to some types of exercise better than others. Studies have found that subjects who don't experience improvements in one fitness arena find themselves killing it in another. There's a lot about non-responders that we don't understand, including why they underperform as compared to their fellow study subjects. And while research suggests genetics, baseline fitness, nutritional habits, age, weight, sleep quality and stress are contributing factors, there's a growing body of evidence that suggest the problem isn't insurmountable.

"As such, it may be preferable to label individuals exhibiting no measurable improvement in a given variable as those who 'did not respond,'" said sport scientist Craig Pickering in an article called Do Non-Responders to Exercise Exist - and if so, What Should we do About Them? Pickering describes the varied response to exercise as "a normal and natural occurrence" that shouldn't be interpreted as failure. He goes on to offer a reminder that regular exercise offers benefits that extend beyond those traditionally measured, such as a boost in mood, energy and sleep.

Still, for those non-responders who want to reap the full rewards of exercise, something as simple as modifying the workout will often kick-start results.

Extending the time frame from which results are monitored - like waiting for 24 rather than 20 weeks to gather results, may allow slow starters a chance to catch up to those who get fitter quicker. Another effective strategy is exercising more often, which provides additional stimuli from which to trigger change.

Given that time constraints are the No. 1 reason for forgoing a regular exercise routine, the idea that more exercise is the only way to ensure results isn't exactly good news for non-responders. So it's comforting to know that increasing exercise intensity may be another viable solution.

A Queen's University study that divided obese subjects into three distinct exercise groups (low intensity, low volume; low intensity, high volume; and high intensity, high volume) reported that the only group without any non-responders in their ranks was the high-intensity group. And among the low-intensity groups, the higher volume option had fewer non-responders.

Finding out more about why some people don't respond to exercise to the same degree as others is important, and not just for non-responders. For anyone whose motivation to exercise lies mainly in its promise to prompt change, maximizing results is the first order of business. If that describes you, go ahead and experiment with different exercise routines, intensities and volume. Boosting exercise

frequency to four or five times a week has proven more effective than hitting the gym once or twice in that same time period. Non-responders also experienced positive results after switching their mode of exercise, changing from aerobic conditioning (the treadmill) to strength training workouts (hitting the weight room) or vice versa. Others prompted change by picking up the intensity of their exercise routine - switching from steady state to interval workouts.

Bottom line is, like other things in life, fitness comes easier to some people than others. So while no one wants to be among those who are typically described as non-responders, it's nice to know that a little extra homework or experimenting with alternative paths to success can make positive change happen.

"This is good news, given the wide-ranging benefits of exercise on health and well-being," said Pickering of the opportunity for non-responders to finally be rewarded for working up a sweat.

© 2019 Postmedia Network Inc. All rights reserved.