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$\left[\begin{array}{l}\text { NOTE: Some sentiments contained within "What We're Reading" articles may not strictly conform with Simple Again's nutritional outlook. We read articles containing opposing information all the time and derive our nutritional philosophies } \\ \text { from the latest science, the opinions of experts worldwide and our anecdotal experiences in the field. We keep an open mind and a strong affinity for fact-based evidence to help make the world of nutrition "Simple Again" for you. }\end{array}\right]$

## 4 Ways to Become a Better Runner this Year

Reaching your full potential as a runner is all about trial and error. There are so many pieces to the puzzle, and it often takes years to figure out the right formula. One thing is for sure: What works for your running buddy likely won't work for you. Upping your running game is all about focusing on your individual weaknesses and building on your existing strengths.
Whether you're looking to score a 5K PR or finish your first half marathon, there are a number of proven approaches to improving running performance. Step back and consider which of the following things need the most work, and commit to focusing on that aspect of training all season long.

## Build Mileage

According to the most recent National Runner Survey conducted by Running USA, the typical American runner logs an average of 20.2 miles per week. For many runners, that volume isn't enough if you hope to
 reach your full potential. Research suggests that increasing mileage can improve running performance.
Keep in mind that this doesn't mean you should be adding in a whole lot of hard running to your training routine. In fact, evidence points runners in quite the opposite direction. In attempting to figure out the optimal balance of training, a 2014 study compared two groups of recreational runners, one which did half of their training at a low intensity and half at a high intensity, and a second group which logged $80 \%$ of their mileage at a low intensity and $20 \%$ at a high intensity. Having run an equal number of weekly miles, both groups saw improvements; however, the 80/20 group improved by almost twice as much in their 10K times over the 50/50 group.
The important takeaway here is that training volume is important, but so is the way you execute those miles. If you think you may benefit from added miles, simply tack on some easy running. This can mean simply extending your warm-ups and cooldowns, or going for a short jog on a day you would normally take off. Make sure to add that mileage slowly, avoiding increasing your weekly mileage more than $10 \%$ from one week to the next. Over several months, the slow build of extra time on your feet will add up.

## Build Speed

Just because the majority of your training should be done at an easy pace doesn't mean harder running sessions aren't important. In particular, if you're looking to boost speed, you should consider adding in a hard interval session each week. Research suggests that it can increase VO2 max. A measure of the maximum volume of oxygen an athlete can utilize, VO 2 max is a great indicator of cardiorespiratory endurance. A higher VO 2 max means that your body is able to distribute a greater amount of oxygen to your working muscles, which in turn, makes for improved running performance. Studies have shown that somewhere between a 3 - to 5 -minute interval is most effective in boosting that fitness. Another study out of the UK suggests that taking active recovery-jogging or walking rather than standing still between those harder bouts of running-is best because it helps clear the metabolites from your muscles, readying them for the next interval.

## Build Strength

Research has shown again and again that strength training has the potential to boost running economy. This is important because running economy has to do with how much fuel you utilize to travel from point A to point B . Like in a car, the less fuel you use, the more economical you are and the longer you'll be able to travel.

A study published in the Journal of Strength and Conditioning assigned a group of female distance runners to a 10week training program. One group simply ran 20-30 miles per week, while the other group ran 20-30 miles a week in addition to subscribing to a traditional strength training regimen three times per week. At the end of just 10 weeks, the strength-training group improved their running economy by $4 \%$, whereas the running only group didn't see that change.

Research has also shown that more explosive strength training, like plyometrics, has a positive effect. In this case, researchers had runners swap $30 \%$ of their training volume for explosive strength training. After nine weeks, the runners saw an $8 \%$ boost in running economy and improvement in their 5 K times.

Put simply, there are many forms of effective strength training. Choose an approach that you enjoy and do it 2-3 days a week as you start your the new season. The off-season and early seasons are the best times to focus on strength work, so be sure to back off as you get closer to your goal race at the end of the season.

## Build Mental Stamina

Mental toughness is one of those elusive qualities that every runner seeks. Studies on athletes in many different sports have demonstrated a clear link between mental toughness and increased performance. The thinking goes, the more mettle an athlete has, the more likely he will persist and keep pushing in the face of challenges.

Indeed, the act of training appears to inherently boost runners' mental strength. So if you're one to back off your pace at the slightest sign of discomfort or get thrown for a loop when your training buddy is out-running you in a workout, it may be time to put in additional hard workouts to train that mental muscle. Short, easy runs won't generally test your psychological strength; however, longer runs that require extended focus or high-intensity workouts that involve pushing to the maximum will. Just be sure to do these in moderation. Your brain needs rest and recovery in the same way that your body does.

