



Ask the Expert with Dr. Darrell Menard

Find Answers to your Sport Medicine Questions!

Treadmill versus Outdoor Running

Q: *The winter weather at my current posting is a lot colder than I am used to. While I love running, I find it hard to motivate myself to train outside when the temperature drops below minus 25C. So I find myself running on a treadmill more than I ever have. Someone told me treadmill running is easier than running outside. Is this true, as I am running a half marathon in May and want to be properly prepared?*
Lt(N) Fairweather

A: Dear Lt(N) Fairweather: Congratulations on deciding to start treadmill running. This is an excellent training strategy particularly during our unpredictable Canadian winters. Many athletes have questioned if treadmill running provides the same benefits as running outdoors and research has shown these two forms of running are different. The most significant difference is that treadmill running is physiologically easier than running outside.

This reduced workload occurs because the treadmill belt assists leg turnover thus making it easier to run faster; treadmill runners don't experience the wind resistance that comes from moving through the air and from Mother Nature; and the treadmill platform provides some give which reduces the shock absorbing demands made on working muscles. The great news is that by setting your treadmill at a 1% incline you can compensate for all these differences. Treadmill running offers a number of important advantages. It may be the only way to get in a good run on days when the roads are buried under snow or slippery because of freezing rain. Many athletes find the treadmill allows them to do speed work throughout the winter – this includes doing intervals, time trials and tempo running.

Treadmill running may also be a safer alternative to running in an area where you are uncertain about your personal safety. Some treadmills can even be programmed to simulate race courses. Ideally during your race preparation I would recommend you try to run 2-3 days/wk on the road and one of those days should be your long run of the week. Combine this with 2-3 days/wk doing speed work on the treadmill and you will enjoy the best of both worlds.

The bottom line is that treadmill running is a great way for you to prepare for your half marathon and by setting the incline at 1% it will be as physically demanding as running outside. Hopefully you are blessed with an early spring so you can do less indoor training and enjoy more "fair weather" running outside. Good luck in race.

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Dr. Darrell Menard is the Surgeon General's specialist advisor in sport medicine. He has worked extensively with athletes from multiple sports and has covered Canadian teams competing at multiple games including the 2012 Olympics and the 2016 Paralympic games. These articles were originally published in the Canadian Forces Journal, the Maple Leaf.

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