

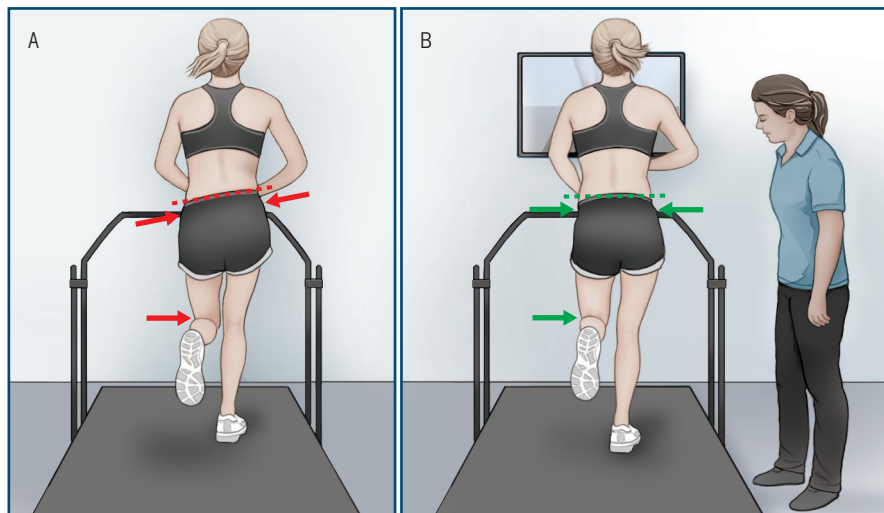
Running

Improving Form to Reduce Injuries

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Running is often perceived as a good option for “getting into shape,” with little thought given to the form, or mechanics, of running. Most people assume that running is something natural that we simply know how to do. However, as many as 79% of all runners will sustain a running-related injury during any given year. If you are a runner—casual or serious—you should be aware

that poor running mechanics may contribute to these injuries. A study published in the August 2015 issue of *JOSPT* reviewed the existing research to determine whether running mechanics could be improved, specifically with the help of real-time visual or audio feedback. The ability to improve running form could be important in treating running-related injuries and helping injured runners return to pain-free running.



BENEFITS OF VISUAL AND AUDIO FEEDBACK. Evidence supports the use of real-time visual and audio feedback to improve running form. (A) The runner on the treadmill exhibits poor running form. (B) Visual feedback on the screen and audio cues from the physical therapist are used to provide the runner with the necessary feedback to improve her running mechanics.

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This *JOSPT* Perspectives for Patients is based on an article by Agresta and Brown titled “Gait Retraining for Injured and Healthy Runners Using Augmented Feedback: A Systematic Literature Review” (*J Orthop Sports Phys Ther* 2015;45(8):576-584. doi:10.2519/jospt.2015.5823).

This Perspectives article was written by a team of *JOSPT*'s editorial board and staff. Deydre S. Teyhen, PT, PhD, Editor, and Jeanne Robertson, Illustrator.

NEW INSIGHTS

Researchers reviewed 974 published studies and identified 10 high- and medium-quality studies that examined the effectiveness of visual and audio feedback for improving running mechanics. Overall, the evidence supported the use of real-time feedback. Using feedback tools, physical therapists were able to help runners (1) decrease the force with which their feet hit the ground during running, and (2) improve running form at the hips, knees, and ankles. For visual feedback, runners watched themselves run in a mirror or viewed a video of their running while a physical therapist coached them on how to improve their form. Audio feedback consisted of verbal coaching from the physical therapist, or the use of simple tools such as a metronome, to improve running cadence.

PRACTICAL ADVICE

Research shows that runners can improve their running mechanics using visual and/or audio feedback training while being coached by a physical therapist. As a result of improved running form, runners may reduce their risk of injury. In addition, evaluation and correction of running form may benefit those who have knee or leg pain when running. If you already have a running-related injury or want to reduce your risk of sustaining one in the future, this kind of supervised feedback can help. For more information on improving your running form, as well as other strategies to reduce your risk of injury during running, contact your physical therapist specializing in orthopaedic and sports-related injuries.



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