



Ask the Expert

Find Answers to Your Sport Medicine Questions

Artificial Turf and Injuries

Q: *I enjoy playing indoor soccer twice a week as part of my physical fitness program., especially during our long Canadian winter. I have heard that playing on artificial turf can put me at greater risk of injury. I am concerned. Your comments please. Roberta Goodfields*

A: Dear Roberta: artificial turf has been used in a growing number of sports facilities since the 1960's and the quality of the turf has greatly improved over the last 50 years. Compared to grass, artificial turf offers several advantages: greater durability, reduced maintenance, more versatility, level surfaces (i.e.: no potholes) and consistent performance in all kinds of weather. While these are significant advantages, there are concerns there may be a greater risk of injury playing on artificial turf.

The health concerns regarding artificial turf are focused primarily on 4 issues: 1.The surface is harder than grass and so running and jumping athletes experience higher impact forces. 2. Increased friction between the shoe and the playing surface increases the stress on joints such as the ankle and knee. 3. Turf burns associated with sliding over artificial grass. 4. The potential toxicity that comes from chronic close contact with the playing surface.

Numerous studies have been done comparing the risk of injury playing on artificial turf verses playing on grass. Research in this area is very challenging because it is nearly impossible to control all the potential confounding variables such as shoe design, weather conditions, cleat length, etc. To date, there are well done studies that show that the risk of injury on artificial turf is increased and other studies that show the risk of injury is actually reduced.

The bottom line: the book is still out on this issue. For now, the science suggests you are at no greater risk of injury playing soccer on artificial turf. As always, starting slowly and preparing for the demands of your particular sporting activity are important to prevent injury. One thing that science clearly shows is that by living an active lifestyle you are greatly reducing your risk of many serious medical problems. Stay physically active and enjoy the game!

Dr. Darrell Menard MD Dip Sport Med

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.

The Content is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your physician or other qualified health provider with any questions you may have regarding a medical condition. Never disregard professional medical advice or delay in seeking it because of something you have read on this page.



For more Ask the Expert's visit www.casem-acmse.org/ask-the-expert/