## Proton therapy serves as option for prostate cancer



Dr. Keith Roach

Dear Dr. Roach: My husband had surgery the first time he was diagnosed with prostate cancer. Five years later, he had a recurrence. We investigated his options and decided to go with the proton therapy. I am surprised you did not suggest this treatment in your recent column about prostate cancer. He had no further recurrences and recommended it to others who had good experiences and outcomes.

- J.G.

Answer: In that column, the man with prostate cancer could not get any more radiation. Because he had already had two courses of treatment and his physician was concerned that he would get permanent damage to the colon, a different type of treatment was needed.

Proton beam therapy is a type of radiation treatment different from the current standard of care for radiation (called intensity-modulated radiation therapy), which is localized precisely every day prior to giving the radiation treatment. In theory, proton beam treatment has less toxicity, and although one study showed less toxicity to the genitourinary system from proton treatment, the only study I know that looked directly at toxicity to the colon found that IMRT had less toxicity than proton beam.

To date, there is no evidence that proton beam leads to better outcomes than IMRT, so I do not recommend it. I defer picking the exact type of radiation to the radiation oncologist.

Dear Dr. Roach: Is there a way to get rid of calluses on the feet once they have developed? Can seeing a podiatrist provide benefit? - R.

Answer: A callus is a localized thickening of the skin, and it is caused by repeated pressure. In the foot, these commonly occur as a result of weakness in the ligaments supporting the arch, causing the metatarsal bone to cause excess friction and then a callus - most commonly on the second metatarsal bone in the foot.

Fixing the underlying problem isn't really an option in most, although the podiatrist may use an orthotic to help support the arch. They can certainly treat the callus, usually with cutting the superficial layer of callus and using a medicine to soften the underlying skin, which can then be removed with a pumice or file. Of course, getting properly fitted shoes is essential.

Dear Dr. Roach: Why is the adult dosage of the COVID vaccine the same for all adults regardless of their weight? I am 73 and weigh 101 pounds. I was sick after my third booster - chills, a fever, muscle aches, exhaustion, a sore arm and a headache. My 200-pound, 70vear-old brother who got the same bivalent booster had no side effects. Could the difference in side effects have anything to do with weight? - D.Z.

Answer: Many medicines are based on weight, because the medicine needs a certain concentration in the blood (and sometimes in other organs) to be effective. Too much concentration can be toxic, while too little won't be effec-

That's not the case for vaccines. The goal is to "teach" enough immune cells what the potential invader looks like (like the virus that causes COVID-19) so that the body can fight it off and keep the person from getting sick at all, getting very sick (more often in the case of COVID-19) or dying. The number of immune cells in adults is largely independent of a person's weight.

A recent study in Spain confirmed that side effects are not more likely in smaller people. However, needle size needs to be considered, since the vaccine should go directly into the muscle, and different people do need different

Dr. Roach regrets that he is unable to answer individual letters, but will incorporate them in the column whenever possible. Readers may email questions to ToYourGoodHealth@med.cornell.edu or send mail to 628 Virginia Drive, Orlando, FL 32803.