Science and Conclusions

• When a hypothesis is tested, data is collected/analyzed. The data is reported, and conclusions are drawn.

• When data arrives at a conclusion then the statement is definitive.
  • The results “show”, “demonstrate”, “reveal” “de minimus”

• When data is not clear and definitive or only suggests.
  • The author uses statements such as “likely show”, “may show”, “could demonstrate”, or “warrant further investigation”
In a recent letter to the editor of the MVTimes the author cites the following reference: www.uhhospitals.org/for-clinician/article-and-news/articles/2019/08/artificial-turf-versus-natural-grass

I believe that this article was used as a basis for stating that synthetic surfaces are detrimental to player safety and to undercut the statements made in the High School’s presentation and ultimately sway your opinion. But I believe this was an improper use of science.

Why do I believe this: I read the whole article

The article references data from the 2017-2018 athletic seasons in a part of the country with more harsh conditions than we experience here on island as a basis for stating that synthetic surfaces are detrimental to player safety.

However, The article shows no data, the article does not represent if the data was equalized for the number of hours played on each surface to understand if the data is based upon an equal baseline or if the materials used in those fields are the same as what is proposed by the applicant to MVC.

The data is not published in a peer reviewed journal so it cannot be checked.
“Despite the protective benefits of natural grass fields, fewer schools use them because of the extra maintenance required and lack of flexibility. For example, if it rains on a Wednesday, students may have to stay off the field to prevent damage before a Friday night football game.”

“Artificial Turf is easier to maintain, doesn’t require water or fertilizer and can accommodate a variety of activities. With artificial turf, students can practice on the field in almost any weather without damaging the ground. Also, artificial turf doesn’t freeze in the winter or thin out in the summer.”

“Dr. James Voos, the author of the article, says parents may want to ask coaches and athletic directors how they maintain their turf to keep students safe. “The main thing we want to emphasize is for parents and students to be aware of the difference,” he adds. “Make sure kids have the right shoes in good condition, appropriate helmets and proper protective equipment.”

He does not conclude that turf should not be used.
Real World Example #2

• Surgeon General’s Warning:

Smoking Causes Lung Cancer, Heart Disease, Emphysema, and Complicates Pregnancy
Here is what the label says

SURGEON GENERAL’S WARNING:
Smoking Causes Lung Cancer,
Heart Disease, Emphysema, And
May Complicate Pregnancy.
My Ask

• Please ask for the full source of the information people provide to you
  • Please read that source and understand the conclusions of the authors.
  • What someone tells you is in there and what “is” in there are not always the same.

• Always question the qualifications of the person telling you something is a fact.
  • Are they qualified to make the statements they are making?
  • Do they support their statements with data, if not please consider treating it as opinion
  • If a statement cannot be verified, please treat it as opinion and not part of your deliberations.

• https://pediatrics.aappublications.org/content/144/5/e20192759