

STERIODS VS “STERIODS”

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The Example

The term “steroid” is commonly used all around the world, but is it being used in the right context? Steroid is a generalized term for a chemical structure discovered in 1789 that contains four connected rings of carbon in a precise arrangement (LibreText, 2019; Nes, 2011). Some steroids are found naturally within the human body such as cholesterol, cortisol, testosterone, and estrogen, while others are man made for common therapeutic use (LibreText, 2019). All of the mentioned steroids and their uses are determined by specific attachments of other chemical pieces to the steroid skeleton. From this, it is obvious that steroids are not as simple as sometimes made it out to be.

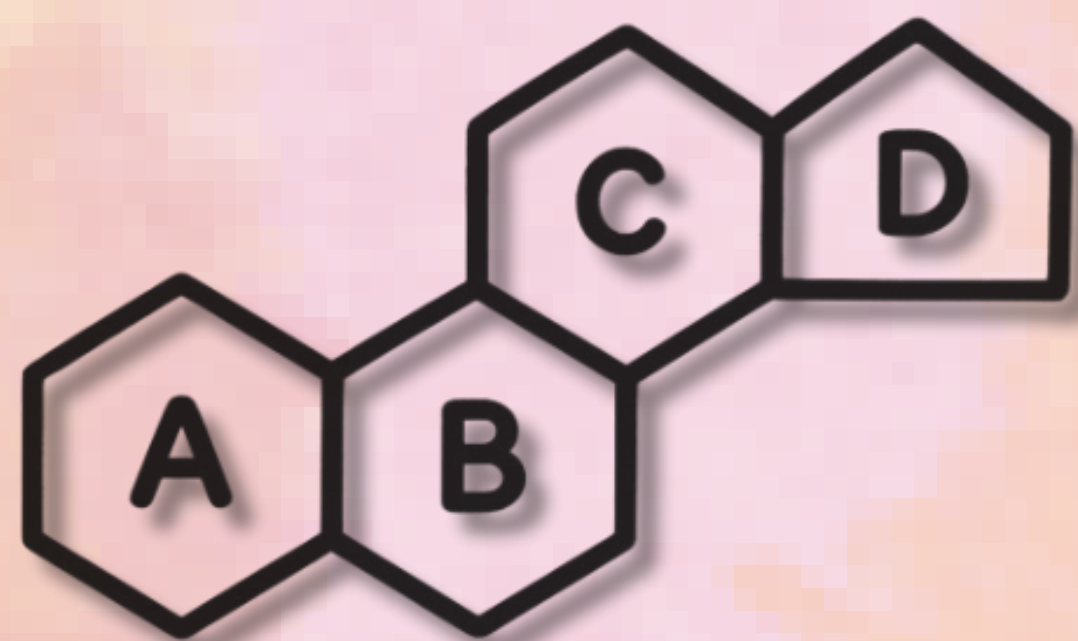


Figure 1. The skeleton structure of a steroid (LibreText, 2019)

The Scientific Nature

The scientific definition of a steroid, as shared above, is not simple nor obvious from the single word “steroid”. The media can use the blanket term, but there is an extensive scientific background hidden when simply using “steroid”. This creates a need for the use of easily interpretable language to ensure quick public understanding of the information. The diversity of steroids, from being found naturally to being used in medication, demonstrates the vital role in medical science. Therefore, highlighting how important scientific discovery is for society to allow for informed decision making in healthcare; however, it must be communicated carefully to ensure limited misinterpretation and to develop increased confidence of scientific evidence.

Why?

Although steroids as a general topic are not inherently important for everyone to understand deeply, this example highlights how crucial accessibility of scientific concepts to the public is. If readers possess even a moderate knowledge about steroids, it gives them the opportunity to evaluate articles and media to determine if the content is factual or misinformation. This, in turn, teaches readers about misinformation and how to combat it, allowing them to be better advocates for scientific literacy.

Learning Activity

Use to guide students in gaining the ability to question vague or misleading articles, in turn building critical thinking skills, and allowing students develop a sense of misinformation, enabling them to become advocates for both media and scientific literacy.

Example: Provide students with two to three news articles that contain vague scientific terms. Encourage discussion about how the writing could be written for better accessibility to the general public and have them identify vague/misleading terms.

References

Libretexts. (2019, August 25). 3.5: Steroids. Chemistry LibreTexts; Libretexts.

[https://chem.libretexts.org/Courses/Case_Western_Reserve_University/CHEM_121%3A_Concepts_for_a_Molecular_View_of_Biology_II_\(Cunningham\)/3%3A_Lipids/3.5%3A_Steroids](https://chem.libretexts.org/Courses/Case_Western_Reserve_University/CHEM_121%3A_Concepts_for_a_Molecular_View_of_Biology_II_(Cunningham)/3%3A_Lipids/3.5%3A_Steroids)

Nes, W. D. (2011). Biosynthesis of Cholesterol and Other Sterols. Chemical Reviews, 111(10), 6423–6451.

<https://doi.org/10.1021/cr200021m>