There is little motivation to address the problem. Mispronunciation rarely causes misidentification of muscles. An improper "ae" sound in "tensor facia latae" does not confuse that muscle with another. The "peroneus" group is identifiable with any syllable accented. "Supraspēnatus" and "suprasp īnatus" are sufficiently similar to each other and different from other muscles. If it looks and "quacks" (sorry), contracts like the "sternocleidomastoideus," the correct "ei" pronunciation is not critical. Bottom line, accurate identification trumps correct pronunciation.

Predictably, new muscle jargon has emerged. Slang alternatives like "latts," "pecs," and "abs" for "latissimus dorsi," "pectoralis major," and "rectus abdominis" are easier and quicker to pronounce and spell. Understandable for the layman, this hardly seems acceptable for the professional, who really should be able to talk the talk.

Table 1 lists names and correct pronunciations for commonly mispronounced muscles.

Muscle names should be pronounced correctly by those who use them professionally. The third syllable of "peroneus" is accented, not the second. The first syllable of "gracilis" is accented, not the second. More than one "trapezius" are "trapezii," but "trapeziuses" is acceptable. Not knowing that is unacceptable.

References

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Quick Fix

BALLOON BIOLOGY: Balloons, Baggies & TP Tubes Help Students Build 3D Mental Maps

STAN BRAUDE

We have access to a wide array of high quality artwork and digital tools to help students visualize three-dimensional structures and processes. Many students have the experience and ability to mentally translate these images into three-dimensional mental constructs. However, many other students are lost when we point to a beautifully rendered, but flat, image while describing a three-dimensional structure. As a result we may find ourselves tracing the contours of an invisible structure in three-dimensional space as we talk. Some students can be drawn into our description and "see" what we are describing, but many students are still unable to imagine the three-dimensional relationships we are attempting to describe. I have found that a small arsenal of props can go a long way in translating the beautiful two-dimensional artwork on the overhead to a three-dimensional image in the minds of my students.

Figure 1. Balloons, baggies, and toilet paper tubes are simple manipulatives that help students translate detailed, but flat, illustrations into three-dimensional mental images.

The most commonly used props are as simple as a long clown balloon (the type used for twisting into animal shapes), a transparent produce bag from the grocery store, and an empty toilet paper tube (Figure 1). The balloon, bag, and tube allow me to touch and point to interior and exterior surfaces as I describe a variety of processes. These items are so simple that every student can have his/her own "visualization kit" and can use it during class and while studying.

During the discussion of membrane structure, I can hold the edge of the bag and explain that the image on the screen is zooming in on that edge and showing the interior and exterior surfaces. The baggie model can also help me illustrate processes ranging from gastrulation to the enhancement of surface area with microvilli.

Simple manipulatives can also help students visualize the linings and coverings of hollow structures and help them understand processes inside and outside tubular structures. I will typically hold and refer to a cardboard toilet paper tube while explaining peristalsis in the digestive or urinary tracts, blood flow, capillary exchange, and vacuum pressure in the respiratory system. The structures of the nephron, cochlea and semicircular canals, and leaf stomata can all be modeled with long clown balloons.

I also hold a long clown balloon throughout my entire discussion of action potentials. It is so much easier to explain action potentials when I can refer to a concrete inside and outside of the membrane and point to progressive regions along the neurolemma as I discuss progression of the depolarization.

While these simple manipulatives may be most valuable for the kinesthetic learners in a class, all students need to construct three-dimensional mental images in order to understand a wide array of structures and processes. Unlike the expensive and elaborately painted models used during lab to help students build their own mental images, the balloons, bags, and tubes are used in lecture, discussion, and cooperative learning to help students construct three-dimensional mental images.

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