

Using Storytelling to Teach and Learn Medical Terminology

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“Daddy, read me a book.” That familiar refrain from most toddlers probably echoes an older plea from toddlers since language was invented. “Tell me a story, Mommy.” People of all ages and cultures, ancient and modern, seem to enjoy a good story. Until fairly modern times, history, including the histories of words, was passed on through storytelling. Storytellers were revered in their communities.

Just as we study our genealogies to learn about past generations, we can enrich our study of language by studying the etymology (or origin) of words. It is true that the meanings of some modern words bear little or no resemblance to the original meanings of their ancestors. This is in part because modern languages have evolved and borrowed from other languages, some of which are now extinct. Still, the study of etymology can pique our interest in the study of language, enrich our general knowledge not only of language but of ancient and modern cultures, and when relatively unchanged from the original, can help us remember and understand today’s meanings and nuances of meaning.

It isn’t only students who can benefit from the study of the origins of words. Practicing transcriptionists can benefit too. Exogenous and endogenous pressures to produce more lines faster have robbed many an MT of that which drew them to medical transcription—their love of words. Pausing to examine the origin of a word being researched in a dictionary can add moments of delight and wonder to an otherwise mundane day. If you would like to throw off the drudgery of meeting production quotas and turnaround times, reawaken your curiosity, delight in learning new words, and feel the pure joy of discovery for the language with which you work every day, dig into your dictionaries and study the etymologies of words.

Let me illustrate:

Imagine encountering the term *acne vulgaris* or *verruca vulgaris* for the first time. *Vulgaris* looks a lot like our English word *vulgar*, doesn’t it? It brings to mind the meaning “crude, indecent,” as in “a vulgar joke.”

Vulgaris is a Latin adjective (from the noun *vulgus*, “the crowd, the masses”) meaning “common, pertaining to the common people,” or “ordinary, shared by all.” This is the meaning that applies to the Latin Vulgate Bible of the 4th century, referring to the common speech of a people, the vernacular. The word *vulgar* itself is an example of pejoration, a linguistic term applied when the meaning of a word changes for the worse over time. The only Latin sense reminiscent of our modern word was in the idea of “general sharing,” i.e. “sexually promiscuous.”

Our word *vulgar* appeared in English in the late 14th century, still with the meaning it carried in Latin. Perhaps due to the lack of opportunity for education and refinement and the perceived ill manners of the common people, it began to take on connotations similar to those we associate with the word today. By the 17th century, it was found to mean “deficient in taste,” making explicit what, over time, had become implicit in its meaning.

However, the medical terms *acne vulgaris* and *verruca vulgaris* still carry the original meaning of “common”—common acne, common warts. You can see how people might have a completely different concept of a medical term than the one intended if they fail to consider the origin and

evolution of a word's meaning. In this example, the danger is even more likely, considering cultural attitudes toward acne and warts!

Some dictionaries are better than others at illuminating the ancestry of a word. Older dictionaries and some current ones place the etymology in brackets following the pronunciation; many modern dictionaries place the etymology at the end of the definition, again in brackets. This latter practice, sadly, reflects the lack of emphasis lexicographers and dictionary users place on the rich, interesting, and often colorful histories of words. Some dictionaries give short shrift to etymologies, providing only the briefest lineage. Others give quite a bit of detail. Sometimes it is necessary to back up a few entries to find the origin of the word you're researching, and sometimes you may have to look up individual components of the word. Here are three dictionary entries illustrating how to locate the etymology.

From *Stedman's Medical Dictionary*, 26th edition:

es•cutch•eon (es-küch'ün). The region of the skin in quadrupeds (usually cattle) between the hind legs above the udder and below the anus; the hair in this region generally grows upward. [through O.Fr., fr. L, *scutum*, shield]

(Note: *escutcheon* does not appear in *Stedman's 27th edition*.)

From *Dorland's Illustrated Medical Dictionary*, 29th edition:

es•cutch•eon (es-kuch'@n) [L. *scutum* a shield] 1. a shield or something shaped like a shield. 2. the shieldlike pattern of distribution of the pubic hair.

From *The American Heritage Dictionary of the English Language*, 3rd edition:

es•cutch•eon (ĭ-skäch'@n), n. **1. Heraldry.** A shield or shield-shaped emblem bearing a coat of arms. **2.** An ornamental or protective plate, as for a keyhole. **3. Nautical.** The plate on the stern of a ship inscribed with the ship's name. —**idiom. a blot on [one's] escutcheon.** Dishonor to one's reputation. [Middle English *escochon*, from Anglo-Norman *escuchon*, from Vulgar Latin, **scūtiō*, *scūtiōn-*, from Latin *scutum*, shield . . .]

As an aside, it is interesting to note the differing definitions and pronunciations among the three examples. I won't belabor them, but these could suggest a teaching moment in the classroom. One could expect that a "vulgar" English dictionary would not necessarily include a medical meaning for this particular word, although it may include medical terms. It is possibly an oversight on the part of *Stedman's* editors to fail to include the definition that applies to humans in the 26th edition, or include the term at all in the 27th edition.

Escutcheon does not have as colorful a history as some of the words I will discuss below, but it works beautifully for comparing the different treatments given it by different dictionaries. Note that only *Dorland's* includes the etymology after the pronunciation. I might predict that, in its next edition, *Dorland's*, too, might move the etymology to the end of the definition. Sigh!

I do want to point out that knowing how *escutcheon* descended from a word meaning “shield” and visualizing the actual anatomy it represents can enhance the ability to remember the word’s definition. As for remembering the spelling, you’re on your own.

As you delve into the study of word origins, you will find that spelling schemes have also changed. For example, the Latins didn’t like the Greek *k* and used a *c* instead. In addition to substitution, some letters were dropped, new ones added, and some letter pairs transposed as languages evolved. The field of linguistics has names and reasons for these changes, which can be interesting “rabbits” to chase for the curious but are not as important as the meanings.

When I introduced my medical terminology students to the term *etymology* during the third or fourth class, I’d always start by writing the word *sarcasm* on the board. I’d ask them what it meant to them. Most could not actually define it. At first, they would give examples of sarcastic remarks. With encouraging pressure from me, they would offer explanations such as “a mean or hurtful thing to say,” “a pointed remark,” “an insult,” “a slam,” “a slur,” “a demeaning remark.” Invariably, someone would throw in “humorous” or “funny.” It was clear *they* had not been the victim (but perhaps the author?) of much sarcasm! Sometimes, the words “cutting” or “sharp” or even “biting” would be thrown out as well, leading beautifully into my explanation.

Sarcasm and *sarcastic* contain the combining form *sarc/o*, meaning flesh. The words descended from Latin via Greek. Various etymology references cite the original word as meaning “to bite the lip in rage” or “to cut the flesh, as with a knife,” and later “to tear at the flesh like dogs.” The latter image is so vivid, my students never forgot that *sarc/o* meant flesh, and many swore they’d never utter a sarcastic remark again!

So, how do we define sarcasm? It is “a cutting remark, intended to wound or to make the victim the butt of contempt or ridicule.”

Following this introduction, I would show them a picture of an ancient Egyptian sarcophagus and write the term on the board. “Do you know what a sarcophagus is?” I inquired. One or two students had parents who forced them to watch the Discovery or History channel and knew that it was a coffin. They immediately grasped the use of *sarco-* as one of the combining forms but could not hazard a guess at what *-phagus* meant.

I explained that the Greeks entombed their dead in coffins made of limestone (literally, *lithos sarcophagus*). They believed the limestone hastened the decomposition of the body, or ate (*phag/o*) the flesh (*sarc/o*). This gory and unsettling image again etched indelibly on their brains the meanings of three terms used in medical language. After explaining that *lith/o* now simply meant “stone,” I asked them to see how many medical terms they could find containing any of these three combining forms.

With one more illustration, I turned previously bored and disinterested students into word hounds. The next picture was that of a pterodactyl. What child did not have at least one story book about dinosaurs? At the time I was teaching, most had seen at least one of the Jurassic Park movies. I had them hook, line, and sinker. They couldn’t wait to find out how this ungainly-looking creature would fit into the study of medical terminology.

“How would you describe this creature to someone who had never seen one before?” I asked. “Well, the head certainly is unusual but so are other features,” I replied to their first observation. “The wings!” they practically shouted in unison. “Fingers!” they added. Indeed, I told them, this extinct flying reptile was named for its fingers (*dactyl/o*) on its large and unusual wings (*pter/o*). I noted in

Additional Terms for Etymology Study

1. Foxgloves and fingers [digit, digitalis]
2. Pardon forgetfulness [amnesty, amnesia]
3. Horns and hooves [cornea, cornu Ammonis, rhinoceros, rhinorrhea]
4. Elephant gems [pachyderm, pachydermatous, pachyonychia, onyx, onychia]
5. Hidden exotic flowers [orchids, cryptorchism (cryptorchidism)]
6. Standing in front [obstetrics]
7. Upright kids [orthopedics]
8. Mothers, saints, and beautiful women [dura mater, pia mater, matrix, belladonna]
9. An itch that's hard to scratch [prurient, pruritus, scabies, and urticaria]
10. Warts of all kinds [thymus, condylomata acuminata]
11. Spiders, webs, and bridges [arachnophobia, arachnoid membrane, pons]
12. Colors of the rainbow [eosinophilia, chlorophyll, cirrhosis, erythrocyte, xanthoma, cyanosis, corpus luteum]
13. Good and Evil [benign, malignant]
14. Pain and joy [agony, ecstasy]
15. Sitting and mending [sartorius muscle]
16. Doors and shields [thyroid, escutcheon]
17. Siphons and sugar for the sweet [glucose, diabetes mellitus, glycogen]
18. Knots and braids [plexus, meninges]
19. Outside juice [ecchymosis]
20. Beautiful strength [calisthenics]
21. The ladder to success? [Climara, climacteric]
22. Sweet dreams [Morpheus, morphine]
23. Edgar Bergen, Charlie McCartney, and heart chambers [ventriloquist, ventricle, ventral]
24. Vaults, arches, and cellars [fornix, fornication]
25. Evil spirits and roaches [larva, metamorphosis (Kafka)]
26. Cheerfully optimistic and bloodthirsty [sanguine, sanguineous, sanguinary]
27. Old age and madness [senility, presbycusis, dementia]

passing the silent *p* at the beginning of the name and told them they would encounter many more silent letters in medical terms. I also told them that *pter/o* is sometimes transformed into *ptery* in certain words.

One of the strongest aids to retention in any area of study is the relating of new material to learners' experiences and prior knowledge. The above illustrations show learners how to create links from the known to the unknown. For many if not most medical terms, familiar English words can be found with the same roots and origins. Learning such a study technique helps students in all their academic subjects.

In every chapter of the terminology book we used, I would point out the words with interesting etymologies. Sometimes, I would share some of them. I would assign others as homework or extra credit. I asked questions such as:

- The English translation of *ichthys* is *ichthus*. To what [religi-ous] symbol does this word refer? What is an ichthyolo-gist? How does *ichthyosis* relate to these two words?
- Explain how the meanings of *diagnosis* and *prognosis* have evolved “beyond the meaning of the sum of their parts.” What is the etymology of the combining form these two words have in common. Can you think of some English words with this combining form?
- Explain how the word *hypochondriac* can pertain to both a region of the body and a person’s condition.
- What are presbyopia and presbycusis? What nonmedical word(s) can you think of that come from the same origin? How do these nonmedical words relate to the meaning of the medical words.

Questions like these cause the students to look at a given term from many different angles. The repetition of having to look up several terms, nonmedical and medical, and analyze their similarities helps anchor meanings and forges links between the known and the unknown. They can easily be incorporated into learning activities that appeal to different learning styles and use “whole brain” learning techniques, rich in sensory, analytical, and conceptual content.

Teachers who later had my students in nursing, anatomy, and medical transcription frequently told me that mine had the best true understanding of medical terms, remembered more, and seemed better able to use medical vocabulary than other students who had been taught from the same text. I believe that was due to etymology study, as this was the only difference between my course and the medical terminology classes taught by other teachers.

I can just see my students in their old age telling their grandchildren that sarcasm “tears at the flesh like dogs.” I believe this type of study brings words to life and engages learners in ways some other teaching and learning techniques do not. It teaches new learning skills, changes thinking styles, and contributes to critical thinking. It changes poor attitudes about language and about learning and contributes to a desire for lifelong learning. Isn’t that the goal of education?

Annotated References

The American Heritage Dictionary of the English Language, 3rd ed. Houghton Mifflin Company: Boston, 1996. Contains many word histories going beyond the etymology in the definition. Famous for its discussions of usage by a large, respected panel of experts. It also has an appendix on Indo-European language development and history with a long list of Indo-European roots which I’ve found helpful.

Dorland’s Illustrated Medical Dictionary, 29th ed. W.B. Saunders Company: Philadelphia, 2000.
Dunsmore, Charles W. and Rita M. Fleischer. *Medical Terminology: Exercises in Etymology*. Philadelphia: F.A. Davis, 1977. This is a very dry textbook. However, it does have some interesting stories about word origins. May be out of print.

Haubrich, William S. *Medical Meanings: A Glossary of Word Origins*. American College of Physicians: Philadelphia, 1997. Engagingly written medical history and literature as well as

straight etymology. [Annotation by Dr. John Dirckx.] This book was reviewed in the *Annals of Long Term Care*.

Moore, Bob, and Maxine Moore. *NTC's Dictionary of Latin and Greek Origins, A Comprehensive Guide to the Classical Origins of English Words*. NTC Publishing Group: Chicago, 1997. Not as entertaining as Haubrich and West but informative.

Scarborough, John. *Medical and Biological Terminologies, Classic Origins*. University of Oklahoma Press: Oklahoma, 1992. Rambling and not altogether accurate, but contains some interesting material. [Annotation by Dr. John Dirckx.]

Skinner, Henry Alan. *The Origin of Medical Terms*, 2nd ed. New York: Hafner Publishing Company, 1970. More or less accurate etymologies for a lot of medical terms, including dates of first appearance in print. Dictionary format, brief entries, all in all pretty dry reading. Out of print. [Annotation by Dr. John Dirckx.]

Stedman's Medical Dictionary, 26th ed. Williams & Wilkins, Baltimore, 1995.

West, Paul. *The Secret Lives of Words*. A Harvest Book, Harcourt Inc.: San Diego, 2000. The words in this book are mostly English terms. West is an excellent writer, interesting and entertaining.

URLs

Anatomy Word of the Month, William Dyche, MD. <http://www.uomhs.edu/anatomy/anatomicalword.htm>. Gives history of one new word a month; archives go back as far as 1999.

Focusing on Words, John Robertson. <http://www.wordexplorations.com>. Thousands of advanced-level English words derived from Latin and Greek prefixes, roots, and suffixes, organized into thematic units or families, often include histories. Links are also available for Latin and Greek proverbs, legal terms, mottoes, phrases, and words. In addition, there are links to oxymora (aka oxymorons), word stories, pleonasms (redundancies). You can get a free subscription to the *Focusing on Words* newsletter.

The Word Detective, Evan Morris. <http://www.word-detective.com>. A site based on newspaper columns answering readers' questions about words and language.