

Dental MythBuster #4 – Dentists still use novocaine

There are some dental myths I hear quite frequently in my dental office in Orange, CT. The novocaine myth is one of the most common. Invariably, as I am talking about a procedure with my patient in the chair, he/she will say something to the effect of: “So you are going to give me a shot of novocaine, right?”

I usually do not correct the patient, unless he/she works in the medical or pharmaceutical field. If I were to answer the question, I would say:

“No, I am not going to give you a shot of novocaine. Dentists stopped injecting novocaine over 30 years ago. We use local anesthetics that are more effective and have less potential for allergic reactions now.”

History of Local Anesthetics in Dentistry

Cocaine as a local anesthetic

Local anesthetics have been used in dentistry for over 100 years. The first widely used local anesthetic was actually **cocaine**. Cocaine was first used in a dental procedure in 1884. Prior to that, many other techniques were used, with the most common being the consumption large quantities of alcohol before a dental procedure. Cocaine was certainly more effective than no local anesthetic (or drunkenness), but there were many drawbacks, most notably its high potential for addiction, its short duration of action, and its effects on the heart and entire cardiovascular system.



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In 1905, **procaine** was synthesized, and it was immediately adopted as a replacement to cocaine. One manufacturer came up with the brand name **Novocaine** (also called Novocain and misspelled as novocaine). Due to the marketing efforts of this manufacturer, Novocaine became immediately popular with dentists and it subsequently entered the vocabulary of most Americans.

Lidocaine – the most frequently used dental local anesthetic in the U.S.

Novocaine was widely used in dentistry in the early decades of the 1900s with great success. However, it was noticed that some patients suffered allergic reactions to Novocaine. While some of the allergic reactions were mild, others were more serious (note that people are not allergic to novocaine; people can be allergic to PABA, a direct metabolite of novocaine). As a result, a new class of local anesthetics was developed in the 1940s that did not have the same incidence of allergic reactions. They became commercially available in the 1950s, and then the use of Novocaine began to decline in the 1960s. By the 1980s, nearly all dentists had stopped using Novocaine in the United States, and lidocaine (pictured above) became the most frequently used local anesthetic.



Why this dental myth persists...

One would think that I, as a practicing dentist, would know exactly why this myth has persisted for so long. I am unsure. But here are some ideas:

1. Many parents indoctrinate their kids with stories (and phobias) about dentistry. If the parents use the term Novocaine, then kids get used to the term too. Many of those kids are now grown up and pass along the “novocaine” myth to their kids.
2. Procaine (the generic name of Novocaine) is still occasionally used in certain fields in medicine. In addition, other local anesthetics in the same family as novocaine are used in dentistry as [topical anesthetics](#). This might be a reason.
3. Dentistry is filled with many myths such as “[the dentist who pulled my tooth put his knee on my chest](#)” and “[Diet soda is not bad for my teeth](#)” and “[When I was pregnant my baby stole calcium from my teeth](#)”. People may hate going to the dentist, but patients **love** to tell dental stories. Perhaps because so many patients seem to relish in recounting and exaggerating dental stories that we have so many dental myths, including the novocaine one.

Regardless of why this dental myth is still around, it needs to be busted, so I will summarize it by writing:

Dentists no longer use novocaine and haven't used it routinely in over thirty years!

<http://directionsindentistry.net/dental-mythbuster-4-dentists-still-use-novocaine/>

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