

Benefits Spotlight

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Dental Records: What Teeth Can Tell Us About History

You know that brushing, flossing and routine dental visits go a long way toward keeping your teeth and mouth healthy for the rest of your life. But your teeth can say a lot about you even after you're gone. Like your bones, tooth enamel is so hard that it's one of the last substances in the human body to break down. That's why forensic dentists can use teeth to discover information about the deceased hundreds and even thousands of years after their deaths. Here are three facts about historical figures that have been uncovered by doing just that.

KING TUT needed braces.

King Tutankhamun, better known as King Tut, ruled thousands of years ago, ascending to the Egyptian throne in 1333 B.C. when he was 9 or 10 years old. In 2014, scientists conducted a "virtual autopsy" of the child king, an analysis that used more than 2,000 computer scans of his mummified remains to create an image of what he would have looked like. The results: King Tut had overly large front teeth and a heck of an overbite, a condition where the top teeth severely protrude or overlap the lower teeth.

Ancient Egyptians didn't have access to orthodontia, but if Tut had been a kid in 2015 instead of 1333 B.C., his dentist likely would have recommended braces to help correct his overbite. This type of alignment problem can lead to issues such as tooth decay, periodontal (gum) disease, jaw strain and more.

ZACHARY TAYLOR suffered from anxiety.

Twelfth U.S. President, Zachary Taylor, died mysteriously in 1850 after serving just 14 months in office. According to Taylor's death certificate, the official cause of his demise was cholera, an intestinal infection. But many began to wonder if the president had been assassinated by poison. The rumor persisted for more than 100 years, and in 1991, Taylor's body was exhumed and analyzed. The result: no poison. What a forensic dentist (odontologist) did find, however, was that Taylor had a great set of teeth for a man in his 60s, especially considering he lived in the days before fluoride and modern dental science. His biggest problem, indicated by his worn-down front teeth, was that the stresses of being a politician led him to grind his teeth (bruxism).

Were Taylor alive today, his dentist would recommend strategies to reduce stress or prescribe a nighttime mouthguard to prevent tooth grinding during sleep.

KING RICHARD III had a sweet tooth.

England's King Richard III died more than 500 years ago in 1495 – but thanks to his dental records, we've recently learned a lot about his health and habits. The king's skeleton, lost for many centuries, was discovered in 2012 when archaeologists dug up a parking lot in England. A general dental practitioner from London examined the royal remains and announced that Richard must have been a fan of sugary and starchy treats, because his teeth showed considerable decay. And, like Zachary Taylor, the king also had surface loss on a number of his teeth, hinting that he may have suffered from bruxism.

But that's not the end of King Richard's dental woes. Two of his teeth had been removed entirely, presumably due to decay, and tartar was still visible on some of the teeth in his upper jaw. Sounds like Richard could have benefitted from regular brushing and flossing, since tartar occurs when plaque isn't effectively removed.

The king's lack of oral hygiene may end up being beneficial for historians. The dentist who examined Richard's teeth believes that analyzing the tartar may show bacteria that will provide information about King Richard's diet and health practices. From diets to nervous habits, it's amazing what teeth can reveal. Your mouth can still say a lot about you, even when you haven't talked for centuries!

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The History of Oral Health: Dental Anesthesia

- 1400s: The Incas traditionally chewed coca leaves as an anesthetic.
- 1772: Laughing gas (nitrous oxide) was discovered by English chemist, Joseph Priestley.
- 1840s: Anesthetic wasn't widely used before this time, largely because doctors believed pain helped patients heal faster. They also thought the patients' discomfort encouraged doctors to cut fast and accurately.
- 1844: Connecticut dentist, Horace Wells, introduced nitrous oxide to dentistry. He experimented on himself, using it to dull the pain of a tooth extraction.

1846: Dr. William Morton gave the first successful public demonstration of ether anesthesia during a tooth extraction.