

Personal Hygiene

Paleolithic Children Did Not Have to Brush Their Teeth Before Bed



If modern dentistry's mandate to brush three times a day seems excessive, it becomes even more so compared to zero times a day. The origins of toothbrushing lie with the Neolithic Revolution, when humans switched from hunting and gathering to agriculture.

A world without toothpaste, toothbrushes, and biannual visits to the dentist may be difficult for the contemporary mind to grasp, but there was a time when modern exercises in dental hygiene were simply not necessary. The primary purpose of toothbrushing is to rub abrasive substances against the teeth so as to dislodge food and scratch away plaque. Before agriculture, the hunter-gatherer diet included harder, uncooked foods that worked as natural abrasives. This diet was also low in the types of carbohydrates and sugars that lead to cavities. Hunter-gatherer groups dislodged food from their mouths with sharpened sticks, and they chewed on substances with antiseptic properties to reduce oral infection, but toothbrushing as we know it wasn't done.

Junk Food Gets the Brush-off

And then came the Neolithic Revolution, with its carbohydrate-rich staple crops and an abundance of soft, cooked foods. As dental cavities became a widespread problem, innovations in toothbrush and toothpaste developed. Since the very beginnings of the written word, references to dental cavities and the multifarious ways to get rid of them can be found. The ancient Egyptians probably used their fingers in lieu of a toothbrush and made abrasive tooth powders from the ashes of ox hooves, myrrh, burnt and powdered eggshells, and pumice. The ancient Greeks and Romans were fond of toothpaste that included crushed bones and oyster shells. Ancient Persian records indicate the use of, among other things, the burnt shells of snails. Meanwhile, in China, the ingenious use of the chew stick became popular around 1600 B.C. One end of a

stick was chewed down into a frayed brush, while the other end was sharpened into a toothpick: brushing and flossing in one easy-to-use tool.

China also appears to be one early source of the bristled toothbrush. The bristles were made of the hairs of wild boar, which were placed into a carved bone or bamboo handle. Early toothbrushes—no matter where in the world they popped up—were usually made from bone and animal hair. By the early 1800s, bristled toothbrushes were widespread in Europe and Japan. Yet even at this time, it was still popular to simply use a toothpick and homemade toothpaste. Toothbrushing as it is known today began with the mass manufacture and commercialization of toothbrushes and toothpaste.

Uncle Sam Wants YOU to Brush Your Teeth!

It was William Addis of late 18th-century England who first developed a toothbrush that was meant for mass manufacture. The toothbrush was patented in the United States in 1857, and in 1939, the first electric toothbrush was developed in Switzerland. Synthetic materials, particularly nylon, came to replace animal hair as bristles, and bone handles were replaced with plastic handles. Yet even with all these innovations, toothbrushing was not pervasive in the United States until after World War II, when GIs were mandated to brush their teeth daily. Since then, advances in toothbrush and especially toothpaste technology have powered ahead at incredible speed, as companies compete to create the perfect product of oral hygiene—fresh mint, whitening, plaque control, you name it. Meanwhile, organizations such as the American Dental Association and the National Institute of Dental and Craniofacial Research keep busy to ensure best practices in oral hygiene are followed nationwide. Thus, children in the United States don't garner much sympathy when they refuse to brush their teeth before going to bed, even if their Paleolithic peers got away with it.

