GlobalResearch
Center for Research on Globalization

The REAL Source of Cavities and Gum Disease

Prehistoric Man Had Much Healthier Teeth and Gums than Modern Humans

By Washington's Blog
Global Research, February 28, 2013
Washington's Blog
Theme: Science and Medicine

Our modern stereotype is that – until recently – people were plagued with rotting teeth, cavities and gum disease.

But the truth is that prehistoric people had *much better* oral health than we do today.

As NPR reports:

> Prehistoric humans didn't have toothbrushes. They didn't have floss or toothpaste, and they certainly didn't have Listerine. Yet somehow, their mouths were a lot healthier than ours are today.
>
> "Hunter-gatherers had really good teeth," says Alan Cooper, director of the Australian Centre for Ancient DNA. "[But] as soon as you get to farming populations, you see this massive change. Huge amounts of gum disease. And cavities start cropping up."
>
> And thousands of years later, we're still waging, and often losing, our war against oral disease.
>
> Our changing diets are largely to blame.
>
> In a study published in the latest Nature Genetics, Cooper and his research team looked at calcified plaque on ancient teeth from 34 prehistoric human skeletons. What they found was that as our diets changed over time — shifting from meat, vegetables and nuts to carbohydrates and sugar — so too did the composition of bacteria in our mouths.
>
> ***
>
> However, the researchers found that as prehistoric humans transitioned from hunting and gathering to farming, certain types of disease-causing bacteria that were particularly efficient at using carbohydrates started to win out over other types of "friendly" bacteria in human mouths. The addition of processed flour and sugar during the Industrial Revolution only made matters worse.
>
> "What you've really created is an ecosystem which is very low in diversity and full of opportunistic pathogens that have jumped in to utilize the resources which are now free," Cooper says.
>
> And that's a problem, because the dominance of harmful bacteria means that our mouths are basically in a constant state of disease.
>
> "You're walking around with a permanent immune response, which is not a good thing," says Cooper. "It causes problems all over the place."

***

> According to Cooper, bacteria make up approximately 90 percent of the cells in our bodies. [Background; and graphics.] He believes that we focus too much on ourselves and not enough on this so-called microbiome.
>
> "We brush our teeth and we floss, and we think that we've got good oral hygiene. But [we're] completely failing to deal with the underlying problem," he says. "Ten years from now, I think we're going to find that the whole microbiome is a key part of what you get monitored for and treated for."

While this seems counter-intuitive at first, it makes sense after a little reflection. After all, we evolved as hunters and gatherers. We haven't had time to adapt – in an evolutionary times frame – to a life of farming … let alone processed foods.

No wonder – according to the New York Times:

> More than 75% of American adults have some form of gum disease.

The science of healthy internal bugs is in its infancy. As Live Science notes:

> "The concept of a probiotic to help reestablish our baseline microbiota after an antibiotic is a good concept," [microbiologist Martin Blaser of the NYU School of Medicine] told LiveScience. "But the idea that, of all thousand species in our bodies, taking a single species that comes from cow or cheese is naïve." Current probiotics are very well marketed, Blaser said, but there's not much benefit. He does think medicine will one day develop probiotics that will be used to treat illness, but as of now, "it's a very young field," he said.

Ingesting too many antibiotics has also been linked to obesity, as it kills – often permanently – helpful intestinal bacteria (and see this and this), hypertension. Probiotics – which replace healthy intestinal bacteria – can promote weight loss, at least in people who don't have a thriving community of natural intestinal flora.

Indeed, a healthy microbiome is also important for mental health:

> Live Science reports:
>
> > Researchers have increasingly begun to suspect the gut was somehow linked with the brain. For instance, bowel disorders seem linked with stress-related psychiatric disorders such as anxiety and depression in people.
> >
> > To learn more, scientists experimented with mice by feeding them a broth containing Lactobacillus rhamnosus JB-1. This species naturally lives in our gut, and scientists are exploring whether strains of it can be used as "probiotics" to improve our health. They discovered these rodents displayed significantly less behavior linked with stress, anxiety and depression than mice fed plain broth. Bacteria-fed mice also had significantly lower levels of the stress hormone corticosterone in response to stressful situations such as mazes.

> "By affecting gut bacteria, you can have very robust and quite broad-spectrum effects on brain chemistry and behavior," researcher John Cryan, a neuroscientist at University College Cork in Ireland, told LiveScience.
>
> "Without overstating things, this does open up the concept that we could develop therapies that can treat psychiatric disorders by targeting the gut," Cryan added. "You could take a yogurt with a probiotic in it instead of an antidepressant."
>
> ***
>
> The investigators found that one GABA receptor component was present in higher levels in bacteria-fed mice in parts of the brain where it is normally lowered during depression. In addition, several GABA receptor components were reduced in parts of the brain where they are normally increased in stressed or anxious animals.
>
> Next, the researchers severed the vagus nerve, which helps alert the central nervous system to changes in the gastrointestinal tract. They found the bacteria-induced effects on behavior and GABA receptors were diminished, suggesting this nerve is the pathway by which changes in the gut can influence the brain.
>
> Vagal nerve stimulations have been used at times to treat depression resistant to other therapies, but "that's a surgical technique," Cryan said. "By targeting the gut with probiotics, we could indirectly target the vagus nerve without surgery."

And see this.

***
Many native cultures ate a lot of fermented foods containing healthy bacteria. Think yogurt, miso and Inuit fermented seal blubber (gross, we know …)

***

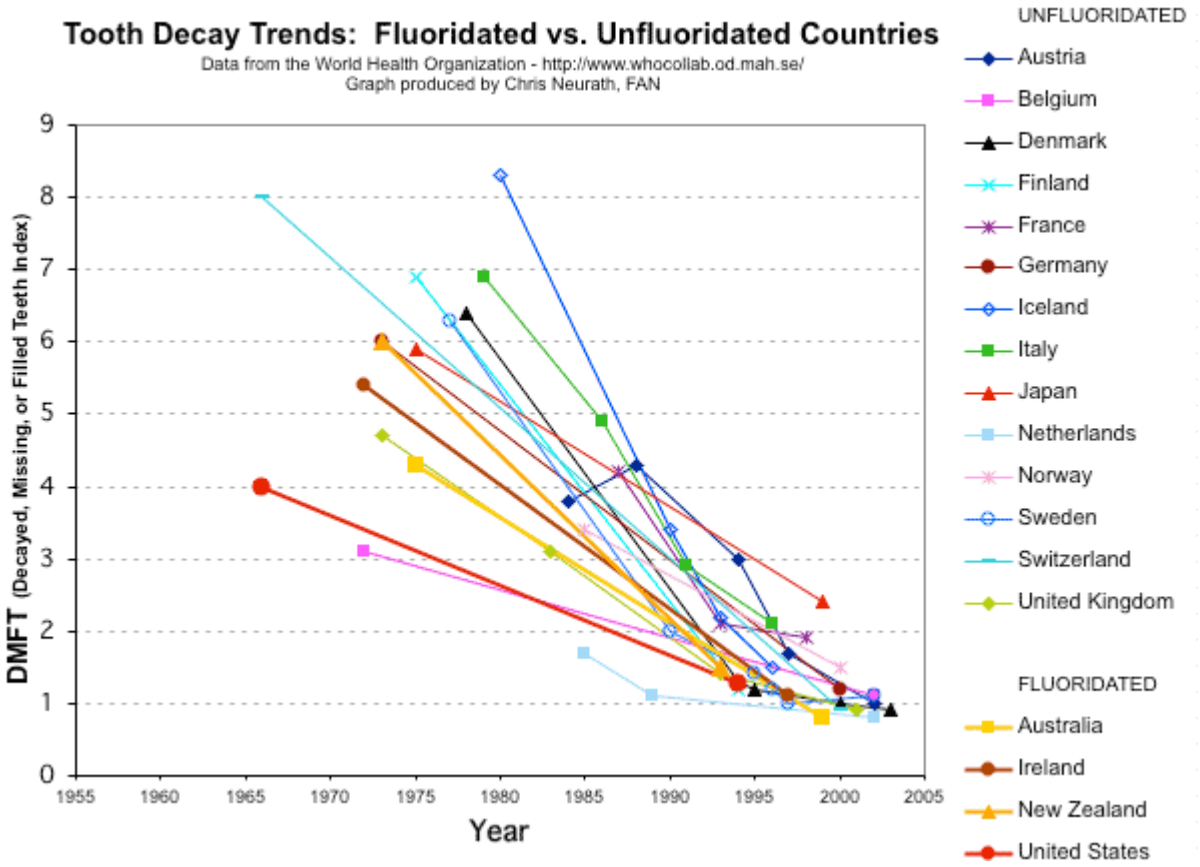
Given that the modern diet contains less fermented foods, and that antibiotics have killed off some of our healthy intestinal flora, probiotics – sold in health food stores – are an important preventative measure against depression.

So it should come as no surprise that probiotics can help our oral health, as shown by scientific studies published in the American Journal of Dentistry, European Journal of Dentistry, and elsewhere.

In a couple of years, we will be able to get the right probiotics to kill the bad bugs in our mouth without destroying the good guys like antibiotics do.

In the meantime, good oral hygiene – conscientious tooth brushing and flossing – is important. Indeed, an overwhelming number of scientific studies conclude that cavity levels are falling worldwide … even in countries which don't fluoridate water.

World Health Organization Data (2004) –
Tooth Decay Trends (12 year olds) in Fluoridated vs. Unfluoridated Countries:



This is due to increased education about the importance of oral hygiene.

In addition, we should cut out refined flour and refined sugar. As Live Science notes:

> Cooper suggests that one way to help return your microbiome to a healthier, more balanced state might be to cut out all of those processed carbs and start eating like our ancestors.

Cranberry juice contains a chemical that blocks cavity-causing bacteria from sticking to teeth. Drinking some unsweetened cranberry juice during the day can reduce cavities.

Finally, brushing with baking soda (or a toothpaste containing baking soda) is safe, and helps to reduce plaque ... even in hard-to-reach areas.

The original source of this article is Washington's Blog
Copyright © Washington's Blog, Washington's Blog, 2013

Comment on Global Research Articles on our Facebook page

Become a Member of Global Research

Articles by: Washington's Blog

Disclaimer: The contents of this article are of sole responsibility of the author(s). The Centre for Research on Globalization will not be responsible for any inaccurate or incorrect statement in this article. The Centre of Research on Globalization grants permission to cross-post Global Research articles on community internet sites as long the source and copyright are acknowledged together with a hyperlink to the original Global Research article. For publication of Global Research articles in print or other forms including commercial internet sites, contact: publications@globalresearch.ca

www.globalresearch.ca contains copyrighted material the use of which has not always been specifically authorized by the copyright owner. We are making such material available to our readers under the provisions of "fair use" in an effort to advance a better understanding of political, economic and social issues. The material on this site is distributed without profit to those who have expressed a prior interest in receiving it for research and educational purposes. If you wish to use copyrighted material for purposes other than "fair use" you must request permission from the copyright owner.

For media inquiries: publications@globalresearch.ca