

**Diseases of the teeth and gums, which are linked to many other illnesses, are finally getting the research attention that they deserve.**

**We begin life experiencing the world through our mouths — it is one of the only body parts that an infant has even a semblance of control over, and it is the fount of nourishment, comfort and communication. Our lips, tongue, gums and (after a few months) teeth remain a focal point — it is through our mouths that we taste, talk, laugh and kiss. The mouth is also home to some of the most common maladies known to humankind: tooth decay and gum disease, which in combination lead to great discomfort and impose major constraints on what we can eat later in life — not to mention the stigma of rotten and missing teeth as a marker of age-related decline.**

**Yet, despite how central oral health is to our well-being, it is taken for granted. Physicians and surgeons who treat our other organ systems are often regarded as heroes. Dentists, by contrast, are typically depicted in popular culture as cartoonish figures who operate on a distinctly less important level than those treating bodily disorders such as cancer and heart disease.**

**But [research to improve oral health care](#) is now coming into its own. It is becoming ever more clear that better integration of the conventional remits of dentists and physicians would improve people's health. Gum inflammation — a common condition — has been found to [have links to a number of other illnesses](#), including heart disease and diabetes. And as the COVID-19 pandemic rages on, the mouth and nose have emerged as key to the transmission of SARS-CoV-2 — presenting the possibility that [brushing and flossing could reduce the risk of getting the disease](#) in the first place.**

Further evidence for the broad importance of oral health can be found in the collection of microorganisms that are present in the mouth. Indeed, new ways to [leverage the mouth's microbial community](#) for better oral and general health might be on the horizon. Studies of the oral microbiome of our human ancestors reveal clues as to [what makes us human](#). And the ability of mouth tissue to repair itself quickly might offer [lessons that can be applied to wounds](#) in other parts of the body to improve healing.

As the science underlying oral health progresses, the practice of dentistry and the public-health issues surrounding it are also in flux. For most of us, the front lines of oral health care involve holding still in a dentist's chair and waiting for the invisible flash of an X-ray. But technological advances using optical fluorescence promise to provide earlier warnings of tooth decay — and [without the risk posed by ionizing radiation](#).

It has long been known that fluoride helps to keep teeth strong and healthy. But 2019 findings have shown that widespread fluoridation of the water supply might have a major public-health downside: ingested systemically, fluoride acts as a neurotoxin, reducing the IQs of children who drink it. Fortunately, topical application of fluoride, with toothpaste, seems to be a [neurologically safe way to protect teeth](#).

With so much action in oral-health research, a global movement is afoot to better integrate dentistry with general medicine. Indeed, as US-based periodontist Shervin Molayem argues: “The archaic [disconnection between dentistry and medicine is detrimental](#) to overall health, and needs to end.”

In the past few years, a number of scientific and public-health groups have been pushing to make oral health a higher priority and to ensure that access is more equitable. In May 2021, the 194 member states of the World Health Organization passed a resolution outlining a number of ways in which oral health care might be improved and, just as importantly, in which to lower cost barriers to dentistry and to [advocate against the consumption of sugar](#). And that's something to smile about.

### **Eleven dentist approved measures for oral home health care**

1. **Brush long enough:** The American Dental Association recommends brushing a minimum of two minutes each time to remove dental plaque. For those who have devices in their mouth, like braces, a bridge, or implants, add extra time to clean around areas where food may get trapped on the device.
2. **Brush often enough:** Ideally, teeth should be brushed after each meal and before bedtime to remove bacteria and plaque. At a minimum they should be brushed twice daily.
3. **Brush the right way:** After placing the toothbrush in the mouth, tilt the toothbrush up so that it's at a 45° angle to the gums. Move the brush head from tooth to tooth using a small circular motion. This goes for the outer surfaces of teeth, the inner surfaces of teeth, and the tops or chewing surfaces of teeth.
4. **Use the right kind of toothbrush:** Most dental professionals will agree that a rotating, oscillating, electronic toothbrush or sonic driven toothbrush is better at removing plaque from the teeth than a manual bristle toothbrush. Oscillating toothbrushes

may rotate at up to 8800 strokes per minute. Sonic toothbrushes may vibrate at up to 40,000 strokes per minute. A popular brand name oscillating toothbrush is marketed under the brand name of Oral-B®. A popular sonic toothbrush is marketed under the name of Sonicare.®

5. **Floss after meals and at bedtime:** Flossing is important. Failure to floss results in missing half the surfaces of the teeth where plaque can form causing cavities and gum disease.
6. **Brush the tongue:** The tongue forms the floor of the mouth. It is critical for speech and swallowing. It can, however, act as a trap for bacteria causing bad breath, dental decay, and gum disease. Use the toothbrush to gently brush back and forth several times with each brushing. Special tongue brushes may be purchased on the Internet that cost only a few dollars
7. **Don't brush too hard:** Whether using a manual or a powered toothbrush, the most effective way to clean the teeth is by repetition, not force. Exert the same amount of pressure as the amount one might use to ring a doorbell. Too much pressure may wear down the enamel surface and cause the gums to shrink and recede from the teeth forming pockets at the base of the teeth in which microbes can hide.
8. **Don't use too much toothpaste:** Adults need only to express a pea-sized amount of toothpaste on the brush, or one half the length of the standard toothbrush.
9. **Store the toothbrush properly:** Keep the toothbrush as clean as possible. Rinse thoroughly after using it to make sure toothpaste and any debris is removed from the bristles. Store the brush in the upright position where it can air dry. If stored with other toothbrushes, make sure they do not come in contact with each other. Don't store the toothbrush in a closed container since

microorganisms that grow best in warm, dark, and moist environments may proliferate on the brush.

10. **Change the toothbrush or the toothbrush tip on an electronic powered toothbrush frequently.** The lifespan of a manual bristle toothbrush is about 3 to 4 months. After that, the bristles become frayed and do not clean the teeth well. Replace the brush. For powered toothbrushes change the toothbrush tip every 90 days.
  
11. **Prevent dry mouth.** Saliva provides a major source of defense for the oral cavity against dental infections, gum disease, and dental decay. Conditions that can lead to a decrease in the formation of saliva in the mouth include drugs, radiation treatments, diseases like Sjogren's syndrome, and failure to hydrate. Drinking water ensures optimal salivary flow. The water of choice should be distilled water.