

# What happens to teeth as you age? And how can you extend the life of your smile?

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A healthy smile [helps us](#) live long, well and happy lives. But just [like our bodies](#), our teeth succumb to age-related changes.

So what happens to [teeth](#) as you age? And what can you do to ensure your smile lasts the distance?

## First, what are teeth made of?

The tooth crown is covered by a hard [enamel](#) coat that surrounds softer, brown dentine, which protects a centrally located pulp.

Enamel is a complex weave of [brittle](#), honeycomb-clustered strands that interact with light to make teeth appear opalescent (a pearly, milky iridescence).

[Dentine under enamel](#) forms most of the tooth crown and root, and is made of collagen, mineral, water and proteins. Collagen strands are [woven](#) to stretch and spring back, to [prevent teeth](#) from cracking and breaking when we grind and chew.

The pulp has [blood vessels](#) and nerves that communicate with the rest of your body.

Enmeshed in the dentine mineral and collagen are small, [interconnected tubules](#) formed by specialized cells called [odontoblasts](#) that settle around the pulp, once our teeth completely form.

Each tooth contains a [finite number of odontoblasts](#), unlike the constantly replenished special bone cells that renew.

## How do our teeth change as we age?

Unable to renew, our teeth [become brittle](#), and prone to fracture as dentine loses its spring.

This is [more common](#) in teeth with existing crack lines, large fillings or root canal treatments.

With time, the outer surface of enamel [thins](#) to reveal the relatively opaque dentine that darkens as we age.

The dentine darkens because the collagen weave [stiffens and shrinks](#), and the fluid in the tubules [fills with mineral](#).

The odontoblasts continue to form dentine inside the tooth to reduce the translucent pulp space. The increase in dentine makes our teeth appear [opaque](#) and insulates from hot and cold sensations. This is why [X-rays](#) are useful to detect cavities we may not feel.

Food and drink particles fill micro-gaps and age-related fine crack lines that run up and down enamel to [discolor and stain](#). These stains are easily managed by [tooth whitening](#).

How else can you extend the life of your teeth and brighten your smile? Here are seven tips to avoid dental decline:

## 1. Avoid unnecessary forces

Avoid [using](#) your teeth to hold things such as working tools or to open packaging.

Take measures to avoid forces such as [grinding or clenching](#) by wearing a night guard.

If you have [large fillings](#) or [root canal-treated](#) teeth, speak to your dentist about [specific filling materials or crowns](#) that can protect your teeth from cracking or breaking.

## 2. Share the load

If you are missing molars or premolars, distribute chewing forces evenly to prevent overloading your remaining teeth.

Replace missing teeth with [bridges](#), [implants](#) or well-fitted [dentures](#) to support your bite. Get your dentures [checked regularly](#) to ensure they fit and support adequately, and replace them at least every ten years.

## 3. Preserve your enamel

Reduce [further enamel and dentine loss](#) by selecting soft-bristled [tooth brushes and non-abrasive toothpastes](#).

Certain whitening toothpastes can be abrasive, which can [roughen and wear](#) the tooth surfaces. If you are unsure, stick with toothpastes that are labeled "sensitive."

Reduce your exposure to [acid](#) in food (think lemons or [apple cider vinegar](#)) or illness (reflux or vomiting) where possible to maintain enamel and prevent erosion.

## 4. Enhance your saliva

[Saliva](#) protects against [acid attacks](#), flushes our teeth, and has antibacterial properties to reduce erosion and decay (holes forming).

Saliva is also important to help us chew, swallow and speak.

But our saliva quality and quantity reduces because of age-related changes to our salivary glands as well as certain medications prescribed to [manage chronic illnesses](#) such as depression and high blood pressure.

Speak to your doctor about other medication options to improve your saliva or manage reflux disease to prevent erosion.

## 5. Treat gum disease

Aesthetically, [treating gum disease \(periodontitis\)](#) reduces gum shrinkage (recession) that typically exposes the relatively darker [tooth roots](#) that are more [prone to developing holes](#).

## 6. Manage and prevent senescence

[Cellular senescence](#) is the process that changes DNA in our cells to reduce our ability to withstand physical, chemical or biological damage.

Cellular senescence enhances new cancer formation, the spread of existing cancers and the onset of [chronic illnesses](#) such as Alzheimer's disease, diabetes, osteoporosis and heart disease.

You can prevent cell damage by managing lifestyle factors such as smoking, uncontrolled diabetes and chronic infections such as gum disease.

## 7. Adapt and ask for help

[Ageing](#) can affect our cognition, hand dexterity and eyesight to prevent us from cleaning our teeth and gums as effectively as we once could.

If this describes you, talk to your dental care team. They can help clean your teeth, and [recommend products and tools](#) to fit your situation and abilities.

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