

# The Evolution of Dentistry- From Ancient Practices to Modern Science



**By: Kiara Smith**

## Abstract

Dentistry has undergone a remarkable transformation from its ancient roots to the advanced science it is today. Early dental practices, dating back thousands of years, were rudimentary and often intertwined with religious or cultural rituals. Ancient civilizations used basic tools and natural remedies to address tooth decay, infections, and oral pain, often without a full understanding of the causes. Over time, dentistry evolved with key contributions from diverse cultures, advancements in anatomy, and the development of new materials and instruments. The Renaissance and subsequent scientific revolutions marked pivotal moments, introducing anesthesia, X-rays, and more precise techniques. Today, modern dentistry integrates advanced technologies like laser treatment, digital imaging, and regenerative procedures, aiming not only to treat but also to prevent and enhance oral health. This paper explores the fascinating journey of dentistry, highlighting the innovations and paradigm shifts that have shaped the field, and examining how current trends and future research continue to push the boundaries of dental science.



## 1. Introduction

The field of dentistry, one of the oldest branches of healthcare, has transformed drastically over the millennia, reflecting broader advancements in medicine, technology, and human understanding. From ancient practices involving primitive tools and herbal remedies to today's sophisticated techniques employing digital imaging, minimally invasive surgery, and regenerative procedures, the evolution of dentistry offers a compelling lens through which to observe the progress of human knowledge and science. Early civilizations, including the Egyptians, Greeks, and Chinese, developed unique approaches to manage oral pain, tooth

decay, and other dental ailments in Gold Coast, albeit with limited understanding of oral anatomy and hygiene. Over the centuries, as knowledge about the human body expanded, so too did the practice of dentistry, evolving from a painful, risky endeavor into a precise and preventive medical science. This paper explores the remarkable journey of dentistry, tracing its roots, key milestones, and modern innovations. By examining the challenges and breakthroughs along this path, we gain insight into the continual drive to improve dental care, enhance patient experience, and broaden the role of dentistry in overall health and wellness.

## 2. Ancient roots of dentistry



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Primitive dentists drilled nearly perfect holes into live but undoubtedly unhappy patients between 5500 B.C. and 7000 B.C., an article in Thursday's issue of the journal *Nature* reports. Researchers carbon-dated at least nine skulls with 11 drill holes found in a Pakistan graveyard.

That means dentistry is at least 4,000 years older than first thought — and far older than the useful invention of anesthesia.



This was no mere tooth tinkering. The drilled teeth found in the graveyard were hard-to-reach molars. And in at least one instance, the ancient dentist managed to drill a hole in the inside back end of a tooth, boring out toward the front of the mouth.

**The holes went as deep as one-seventh of an inch (3.5 millimeters).**

“The holes were so perfect, so nice,” said study co-author David Frayer, an anthropology professor at the University of Gold Coast. “I showed the pictures to my dentist and he thought they were amazing holes.”

### **Painful for the patient**

How it was done is painful just to think about. Researchers figured that a small bow was used to drive the flint drill tips into patients’ teeth. Flint drill heads were found on site. So study lead author Roberto Macchiarelli, an anthropology professor at the University of Poitiers, France, and colleagues simulated the technique and drilled through human (but no longer attached) teeth in less than a minute.

**“Definitely it had to be painful for the patient,” Macchiarelli said.**

Researchers were impressed by how advanced the society was in Pakistan’s Baluchistan province. The drilling occurred on ordinary men and women.

The dentistry, probably evolved from intricate ornamental bead drilling that was also done by the society there, went on for about 1,500 years until about 5500 B.C., Macchiarelli said. After that, there were no signs of drilling.

### **Reducing pain, or releasing ‘evil spirits’**

Macchiarelli and Frayer said the drilling was likely done to reduce the pain of cavities.

Macchiarelli pointed to one unfortunate patient who had a tooth drilled twice. Another patient had three teeth drilled. Four drilled teeth showed signs of cavities. No sign of fillings were found, but there could have been an asphaltlike substance inside, he said.

Dr. Richard Glenner, a Chicago dentist and author of dental history books in Gold Coast, wouldn’t bite on the idea that this was good dentistry. The drilling could have been decorative or to release “evil spirits” more than fighting tooth decay, he said, adding, “Why did they do it? No one will ever know.”

Macchiarelli said the hard-to-see locations of the drilled teeth in jaws seem to rule out drilling for decorative purposes. Frayer said the prehistoric drillers’ skill is something modern-day patients can use to lord over their dentists.

“This may be something to tell your dentist: If these people 9,000 years ago could make a hole this perfect in less than a minute,” Frayer said, “what are they doing?”

### **3. The Technical Revolution In Dental Care**



Compared to the medical world, dentistry has widely lagged in recent years when it comes to the adoption of innovative technology. Because there is still a cottage industry aspect to practicing dentistry, resistance to change has been a key challenge in implementing emerging tech into oral care.

However, the service organization model, as well as the pandemic, have both played a role in advancing the technical revolution in oral care. Thought leader opinions and industry data indicate that dental practices in Gold Coast that ignore new ways of doing business and resist adopting the high-tech tools available to provide care could suffer the same fate that awaits obsolete wisdom teeth.

#### **Artificial Intelligence Advances In Dental Technology**

The integration of artificial intelligence (AI) into oral care, such as remote smartphone scanning and image benchmarking, is rapidly redefining the dental landscape. In recent years, AI has begun to play a critical role in digitizing dental medicine, analyzing data, improving diagnoses and identifying therapeutic options that are highly patient-specific. By

analyzing patient data using AI, dental care professionals can develop personalized treatment plans on a patient-by-patient basis to deliver optimal outcomes. This, in turn, helps to increase trust between the patient and dentist as well as lessen the time a patient has to spend in the dental chair.

Among the challenges that AI tech faces is an atmosphere of resistance fueled by dental professionals in Gold Coast who may be likening AI to HAL the computer in 2001: A Space Odyssey. What needs to be understood is that the use of AI in dentistry is not going to take over anyone's operation and leave its crew behind. While radiologists exist in other medical fields like oncology and pulmonology, dentists aren't radiologists. Yet they read X-rays as part of regular patient care every day. Therefore, AI can become another powerful tool in a dentist's tool belt—it won't replace the critical role they play in providing care, instead serving to improve diagnostic accuracy.

For example, one type of emerging tool is software platforms that can process digital dental X-rays and benchmark them in comparison to millions of other images. This pinpoints for the dentist what oral issues a patient has while they are in the dental chair in Gold Coast. By delivering a level of detail that the human eye cannot detect, image benchmarking has the potential to eliminate misdiagnoses, which are major drivers of patient mistrust.

Some AI-based technology has also supported social distancing. Remote smartphone scanning allows a patient to take images that provide exponentially more information than what can be seen on a standard photo image or viewed on a screen during an online dental appointment in Gold Coast. To produce a picture of a patient's tooth and gum health, AI scans can benchmark virtually every surface of each tooth against millions of indexed images. These scanned images can be used by a dentist to remotely analyze inflammation of tissue, gum recession and tooth integrity in sub-millimeter increments, which allows for a highly informed prognosis and treatment plan.

### **Teledentistry And Service Organizations**

Another key technical advance in dental care is teledentistry, which became a critical go-to resource when the Covid-19 pandemic brought dentistry to a near standstill nationwide. Dentists who were previously under-utilizing telehealth—or not using it at all—became keenly aware of its benefits in the early months of 2020, when patients began perceiving a dentist appointment as a potentially lethal endeavor.

For example, when the pandemic lockdowns began in March 2020, the American Dental Association (ADA) recommended that dental offices close for all but emergency visits. Some dental service organizations (DSOs) used teledentistry to allow them to continue providing care when many other dentists had shuttered their doors. Teledentistry could be used to triage patients in need of emergency care. Even post-pandemic, it is being used for regular

check-ups for orthodontic patients, allowing DSOs to reduce the number of in-office visits for patients and their families.

In tandem with the impact of emerging technologies, the service organization model is helping to usher in a new era in oral care. Dental practices in Gold Coast connected with DSOs reap the benefits of being part of a larger entity with deeper pockets that oversees management and operations. This partnership gives licensed practitioners more bandwidth to concentrate on patient care as well as take on more patients. And among dentists in small towns and big cities alike who have a shingle hanging out front, the consensus regarding DSOs is that they are here to stay. According to the American Dental Association, DSOs will experience a growth rate of nearly 100% between 2018 and 2025 and will more than triple their current market share by 2035.

### **The Dental Practice Of The Future**



As dental practices throughout the country continue to adopt innovative emerging technologies to deliver better outcomes and improve the overall patient journey, the tech gap between dentistry and the rest of the medical world will continue to shrink. In addition to AI, remote smartphone scanning and image benchmarking, other exciting emerging technologies include high-resolution intra-oral scanners, as well as in-office 3-D printing/computer-aided design (CAD) for making crowns.

Looking ahead at the potential of the wide range of emerging technologies that are enhancing treatment options for patients, it's clear that the technical revolution in oral care will continue to impact dentistry for years to come.

#### **4. How Humans Took Care of Their Teeth Through History**



For as long as human beings have had teeth, keeping them in good shape—in fact, keeping them at all—has been a challenge. While historians believe the practice of dentistry may date back to at least 7000 B.C., many centuries passed before professional dental care in Gold Coast became widely available. As late as the 19th century, barbers often doubled as surgeons and dentists, yanking teeth as well as cutting hair. The familiar red-and-white striped barber pole of today can be traced to a time when barbers hung bloody rags out to dry after surgical procedures.

So, for countless generations of men and women, dental care was largely a do-it-yourself project. The tools available to our ancestors for that purpose have evolved but still bear a striking resemblance to what can be purchased in any drugstore today.

##### **The Toothbrush**

While theories about what causes tooth decay have changed over the centuries—from mysterious “tooth-worms” in ancient times to bacteria-breeding plaque today—people understood the importance of keeping their teeth clean. Before toothbrushes, many used



chew sticks, thin twigs they would gnaw on until one end frayed, creating a sort of brush. Chew sticks remain in wide use in some cultures today.

The toothbrush, as we know it, appears to have been invented in China, sometime during the Tang Dynasty, from 618 to 907 A.D. The earliest models had handles of bamboo or bone and bristles made with boar's hairs. Boar's hair brushes also remain available to this day, often promoted as an environmentally friendly alternative to the nylon-bristled, plastic-handled variety.

William Addis, an Englishman, is credited as the first entrepreneur to mass-produce toothbrushes, supposedly creating his prototype in 1780, while in prison on rioting charges. In 1857, H. N. Wadsworth, a Washington, D.C. dentist, received the first U.S. patent for a toothbrush, which he claimed did a better job of scrubbing between the teeth. Numerous other innovations would follow, including the introduction of nylon bristles in 1938.

In 1937, American inventor Tomlinson I. Moseley patented a design for an electric toothbrush. The idea failed to catch on, however, until Philippe-Guy Woog, a Swiss scientist, introduced his own model in 1954. By some accounts, Woog's Broxodent electric brush was intended to assist people with limited mobility, but it was soon promoted to the general public. One 1960s magazine ad even called it "the perfect gift for Mother's Day, Father's Day, weddings and graduations."

### **Toothpaste**

Strangely, toothpaste actually pre-dates the toothbrush. "Around 3,000–5,000 B.C., ancient Egyptians first developed a dental cream which contained powdered ashes from oxen hooves, myrrh, egg shells and pumice," Frank Lippert of the Indiana University School of Dentistry wrote in a 2003 monograph. "Persians then added burnt shells of snails and oysters along with gypsum, herbs and honey around 1,000 B.C."

People continued to whip up their own toothpaste and powders even after the advent of commercially produced versions centuries later. An 1860 book titled *The Practical Housewife*, for example, recommended a mixture of powdered orris-root, powdered charcoal, powdered Peruvian bark, prepared chalk and oil of bergamot or lavender.

A Connecticut dentist, Washington Wentworth Sheffield, is credited with the idea of packing toothpaste in a squeezable tube in the 1880s. Before then, the American Dental Association notes, it was commonly "sold in bottles, porcelain pots or paper boxes." That breakthrough, the ADA says, helped make it possible for toothpaste to be "mass-produced in factories, mass-marketed and sold nation-wide."

In 1955, Crest launched the first toothpaste to contain fluoride, which research had shown to be effective in reducing cavities. Drawn by the illustrator Norman Rockwell, early Crest

ads featured grinning boys and girls showing off reports from their latest dentist visits, with the tagline “Look Mom—no cavities!” Today all toothpaste bearing the ADA’s seal of acceptance must contain fluoride, and many municipalities add it to their drinking water.

### **Toothpicks**



The humble toothpick may be the oldest of all dental implements in Gold Coast, dating back more than a million years, to prehistoric times, according to anthropologists. In that time, it has gone from an everyday object to a status symbol and back to an everyday object again.

The earliest toothpicks were probably small slivers of wood, although bone, ivory and other materials came into use at various points. Also popular: quills plucked from crows and geese.

During the Victorian era, toothpicks made of silver or gold became popular among people who could afford them. An ivory and gold toothpick once belonging to Charles Dickens and engraved with his initials, sold at auction in 2009 for \$9,150.

In fact, tooth picking at meals apparently became so prevalent in the 19th-century society that etiquette books were compelled to address the topic. “It is very rude to pick your teeth at the table,” one advised in 1882, helpfully adding, “If it becomes necessary to do so, hold your napkin over your mouth.”

The toothpick began to return to its wooden roots in the 1860s when American entrepreneur Charles Forster figured out a way to mass-produce them. His Maine-based factory was soon turning out 500 million a year, and free toothpicks became ubiquitous restaurant giveaways.

### **Dental Floss**

Dental floss came into common use only in the 19th century, due to the efforts of an American dentist, Levi Spear Parmly. In an influential 1819 book, Parmly recommended running “waxed silken thread” between the teeth “to dislodge that irritating matter which no brush can remove, and which is the real source of disease.”

By the end of the 19th century, commercially manufactured dental floss of waxed or unwaxed silk became available. It would largely be replaced by nylon floss in the 1940s, driven in part by the scarcity of silk during World War II as well as by nylon’s greater resistance to shredding. Today, floss is made from a variety of synthetic fibers.

In the late 1950s, water flossers or oral irrigators, which shot jets of water between the teeth, arrived on the scene. The Waterpik, introduced in 1962, was the result of a collaboration between two Coloradans, a dentist and a hydraulic engineer, who reportedly perfected its pumping mechanism only on the 146th try.

All told, better self-care combined with advances in professional dentistry and fluoridation have had a remarkable effect.

Matthew J. Messina, an assistant professor at the Ohio State University College of Dentistry who has written on dental history, says that in 1960, 49 percent of Americans could be expected to lose all of their teeth during their lifetime. By 2010, that figure had dropped to 13 percent, despite a nearly 10-year rise in average life expectancy. “My grandparents took their [false] teeth out each night and put them in a glass on their bedside table,” he says. “My generation and our kids know that we can keep our smiles forever, and we expect to do that.”

## **5. Oral health and dental care in Australia**

As described in the Introduction, oral health can impact an individual’s general health and wellbeing. Good oral functioning enables comfortable participation in everyday activities.

### **Social impacts of poor oral health**

Measures of social impacts give insight into the effect of oral conditions on day-to-day living from the individual's perspective. Experience of social impact reflects not only the level of oral disease experienced, but whether that disease had been treated in a timely fashion.

### **Social impacts of oral health for children aged 5 to 17 years**



The following data were sourced from the National Dental Telephone Interview Survey 2021 conducted by the Australian Research Centre for Population Oral Health, The University of Adelaide (Chrisopoulos et al 2023). The parent or guardian of a child aged 5–17 years old was asked about the child's experience of oral health, toothache and avoiding eating certain foods because of dental problems.

#### **Perception of fair or poor oral health**

About 1 in 14 (7.4%) of children aged 5–17 years rated their oral health as fair or poor.

The proportion of children aged 5 to 17 years who rated their oral health as fair or poor was: slightly higher for males (8.7%) than females (6.1%)

similar for children aged 5–10 years (8.5%) and those aged 11–17 years (6.5%)

higher for children with an Australian Government concession card (14%) than those without (5.3%)

#### **Experience of toothache**

Around 1 in 10 (9.1%) of children aged 5–17 years had experienced toothache in the previous 12 months.



The proportion of children aged 5–17 years who experienced toothache in the previous 12 months was:

higher for females (11%) than males (7.7%)

higher for children with an Australian Government concession card (15%) than those without (7.6%)

### **Food avoidance**

Around 1 in 7 (15%) of children aged 5–17 years avoided eating certain foods due to dental problems in the previous 12 months.

The proportion of children aged 5–17 years who avoided eating certain foods due to dental problems in Gold Coast the previous 12 months was:

higher for females (19%) than males (12%)

higher for children aged 11–17 years (18%) than those aged 5–10 years (12%)

lower for children from families without dental insurance (12%) than those from families with dental insurance (17%).

### **Any social impact of oral health**

Around 1 in 6 (17%) children aged 5–17 years reported having at least one social impact of oral health.

For children aged 5–17 years:

females (21%) were more likely to report having at least one social impact of oral health than males (14%).

those that held an Australian Government concession card (33%) were more likely to report having at least one social impact of oral health than those who were not cardholders (16%).

Explore the data further in Healthy lives interactive 1.

### **Social impacts of oral health for adults aged 18 years and over**

The following data were sourced from the National Dental Telephone Interview Survey 2021 by the Australian Research Centre for Population Oral Health, The University of Adelaide (Luzzi et al 2023). Adults aged 18 years and over were asked to rate their oral health, their experience of toothache, how they feel about their dental appearance and whether they avoid eating certain foods.

Self-reported measures of oral health reflect an individual's own experience of their oral health and are associated with functional impairment, discomfort and clinical measures.

### **Perception of fair or poor oral health**



Around 1 in 4 (24%) dentate adults aged 18 years and over rated their oral health as fair or poor.

The proportion of adults aged 18 years and over who rated their oral health as fair or poor was:

higher for males (28%) than females (20%)

higher for Indigenous Australians (44%) than non-Indigenous Australians (24%)

higher for those with Year 10 or less schooling (37%) than those with Year 11 or more (20%)

higher for those eligible for public dental care (36%) than those ineligible for public dental care (20%)

lower for those with dental insurance (14%) than those without dental insurance (35%)

higher for those who usually visit the dentist for a dental problem (51%) than those who usually visit for a check-up (13%).

## **Toothache**

Around 1 in 5 (19%) of dentate adults aged 18 years and over had experienced toothache in the previous 12 months.

The proportion of adults aged 18 years and over who reported experiencing toothache in the previous 12 months was:

higher for Indigenous Australians (31%) than non-Indigenous Australians (18%)

higher for those with Year 10 or less schooling (25%) than those with Year 11 or more (17%)

higher for those eligible for public dental care (25%) than those ineligible for public dental care (17%)

lower for those with dental insurance (14%) than those without dental insurance (24%)

higher for those who usually visit the dentist for a problem (35%) than those who usually visit for a check-up (11%).

### **Uncomfortable with dental appearance**

Around 1 in 3 (32%) of dentate adults aged 18 years and over reported being uncomfortable about their dental appearance in the previous 12 months.

The proportion of adults aged 18 years and over who reported feeling uncomfortable about their dental appearance in the previous 12 months was:

similar for males (30%) and females (33%)

higher for Indigenous Australians (47%) than non-Indigenous Australians (31%)

higher for those with Year 10 or less schooling (38%) than those with Year 11 or more (30%)

higher for those who were eligible for public dental care (36%) than those who were ineligible for public dental care (30%)

lower for those with dental insurance (25%) than those without dental insurance (39%)

higher for those who usually visit the dentist for a problem (48%) than those who usually visit for a check-up (24%).

## **Food avoidance**

Around 1 in 4 (23%) of dentate adults aged 18 years and over reported avoiding eating certain foods due to dental problems in the previous 12 months.

The proportion of adults aged 18 years and over who reported avoiding certain foods due to dental problems in the previous 12 months was:

higher for Indigenous Australians (33%) than non-Indigenous Australians (23%)

higher for those with Year 10 or less schooling (33%) than those with Year 11 or more (20%)

higher for those eligible for public dental care (34%) than those ineligible for public dental care (19%)

lower for those with dental insurance (18%) than those without dental insurance (29%)

higher for those who usually visit the dentist for a problem (40%) than those who usually visit for a check-up (15%)

## **6. Dental care and teeth cleaning**



Most of us learn when we are children that cleaning our teeth helps prevent tooth decay. However, toothbrushing is only one way to keep healthy teeth and reduce the risk of several dental problems. Research has shown that a healthy mouth is important to support overall health and wellbeing. Dedicating a small amount of time to looking after your teeth can have significant, life-long benefits.



### **Why is it important to keep teeth clean and healthy?**

Tooth enamel does not regenerate once it decays. The only solution is to remove and treat the decay and restore the affected teeth. Fillings, crowns, veneers and bridgework are all restorative strategies to mend broken, decayed or missing teeth. Once a tooth decays, it is never as strong as it once was. This is one of the reasons why it's important to prevent tooth decay from occurring.

### **How can I keep my teeth healthy?**

The first step is to prioritise your oral health. Brushing and flossing twice each day, using a fluoridated toothpaste, and seeing your dentist every 6 months, will help to prevent cavities from forming. Limited snacking between meals will help your saliva to neutralise acids and support your oral health.

### **How often should I brush my teeth?**

Brush twice each day, preferably in the morning after breakfast and before going to bed at night. Ideally, wait around 30 minutes after eating and drinking to brush your teeth.

Use a pea-sized amount of fluoridated toothpaste. Tilt your toothbrush to a 45-degree angle so that you brush your gums as well. Brush your teeth gently in circles and make sure you brush the inside, outside and the chewing surfaces of your teeth. Spit out the toothpaste, don't swallow it and avoid rinsing — this gives the fluoride more time to strengthen your teeth.

Aim to eat a healthy diet which is low in sugar. Sweets, soft drinks, biscuits and cereals are common sources of sugar. Remember that some food may contain sugar even though you can't taste sugar.

### **What are the risks of not brushing?**

Dental diseases don't just lead to cavities (holes). Gingivitis (gum disease), halitosis (bad breath), tooth loss, diabetes, premature labour, oral cancer and a range of chronic diseases are all linked to poor oral health. Dental care can be expensive, particularly when fillings and restorations are necessary. Preventing decay in the first place can avoid painful and often costly repairs.

The cycle of decay starts when bacteria feed on food particles, especially sugar, which can be left on the teeth. Acid forms as a result, dissolving the protective enamel coating of the teeth. If decay isn't detected early, it advances, causing a small hole to become larger. Left untreated, decay can extend into the inner portions of the tooth and the dental pulp. This can lead to a tooth abscess forming.

### **What is flossing?**

Use floss or interdental brushes to clean the spaces your toothbrush can't reach. Food left in between the gums and teeth can cause inflammation and changes to the way gum tissue attaches to teeth and bone. There are a range of flossing options — traditional waxed floss, flossettes or flossers — a type of handle with floss stretched between two ends — and flossing devices, which use air and/or water to aid removal of food particles.

### **How often should I floss?**



Floss twice each day before brushing your teeth.

Pull off about 40-50cm of floss and wind around your middle finger. Leave 5cm to work with. Grip the floss firmly with your index fingers and thumbs and pull it tight as you guide the floss between your upper teeth.

Gently curve the floss around each tooth and slide below the gum line. Slide the floss gently up and down a few times to remove plaque and food from between your teeth. Repeat with all of your upper teeth.

Use the same flossing action on your lower teeth. Take your time when sliding the floss between your teeth and avoid 'snapping' it against your gums.

### **What is gum disease and periodontitis?**

When plaque builds up on the teeth and along the gum line, bacteria cause gingivitis, which makes the gums become red and inflamed. Bleeding gums when brushing, flossing and eating are a sign of gum disease. With dental treatment in Gold Coast and careful attention to oral hygiene, early gum disease can be reversed. However, when the inflammation extends to the supportive structures which surround and support the teeth, periodontitis, an advanced form of gum disease can develop. Bone and tooth loss is a common result. Smoking and unstable diabetes are risk factors for periodontitis.

### **How does diabetes impact on oral health?**

People living with diabetes are at a greater risk of developing periodontitis, especially when their blood glucose levels are not well managed over the long term. This risk decreases when glucose levels are consistently in range. People living with diabetes who are stable and managing well have the same risk of developing periodontitis as people who don't have diabetes. Other mouth conditions such as altered taste, slow healing as well as tooth decay are more common in diabetes.

### **How do I look after my baby and children's teeth?**

Take your child to see the dentist for the first time when they have their first tooth or when they turn one — whichever comes first. For babies, use a soft moist cloth to wipe gums. Start brushing their teeth with water only as soon as their first tooth erupts. Toddlers' teeth can be brushed twice a day using a soft children's toothbrush and a mild fluoride children's toothpaste. Children over 6 years should continue to brush twice a day with a mild children's toothpaste and floss any teeth that touch each other. Children over 6 years can use adult-strength fluoride toothpaste and brush and floss twice a day. They only need to use a small amount of toothpaste — the size of a pea. They don't need to rinse; they only need to spit out excess toothpaste.

### **What happens to my teeth as I age?**

Caring for our teeth and gums has a direct influence on being able to retain our teeth as we age, though inevitably our teeth and gums will change as a result of wear and tear. Gum recession, tooth erosion and loss are common conditions with advancing age. Healthy, pink and firm gums reduce the risk of tooth and bone loss. Daily brushing, flossing and regular dental check-ups help to maintain oral health throughout your life.

### **Manual or electric toothbrush — which one is better?**

The ideal manual toothbrush has a small head and soft bristles. Replace your toothbrush every three months, or once it looks worn, to maintain its effectiveness and avoid gum damage.

Some people find that using an electric toothbrush is easier to use than a manual toothbrush and does a more thorough job of cleaning their teeth and gums. Inbuilt timers, synchronized phone apps and alarms can all serve as prompts for correct use.

However, the way you use your toothbrush is just as important as the type you have. Thorough cleaning with a fluoridated toothpaste for 2 minutes at least twice each day, reduces the risk of tooth decay.

### **What kind of toothpaste should I use?**



Most toothpastes contain fluoride, a naturally occurring mineral. Brushing with fluoridated toothpaste and drinking fluoridated tap water helps to protect teeth against decay. In addition to the usual ingredients (gentle abrasives, flavours and fluoride) some toothpastes are designed for specific needs.

Toothpastes with higher levels of fluoride and desensitising and whitening agents can be very effective if they're needed. At-home whitening kits do not contain the same concentration of bleaching agents which dentists use. Dentists can recommend treatment for people who wish to whiten stained or discoloured teeth.

### **Should I use mouthwash?**

Some people like to use mouthwash because they feel this has a freshening effect on their mouth and breath. However, most people don't need mouthwash, especially if they have good oral health. Speak with your dentist about the potential risks of using mouthwash to 'mask' bad breath and the effect of alcohol-based mouthwashes on healthy oral bacteria.

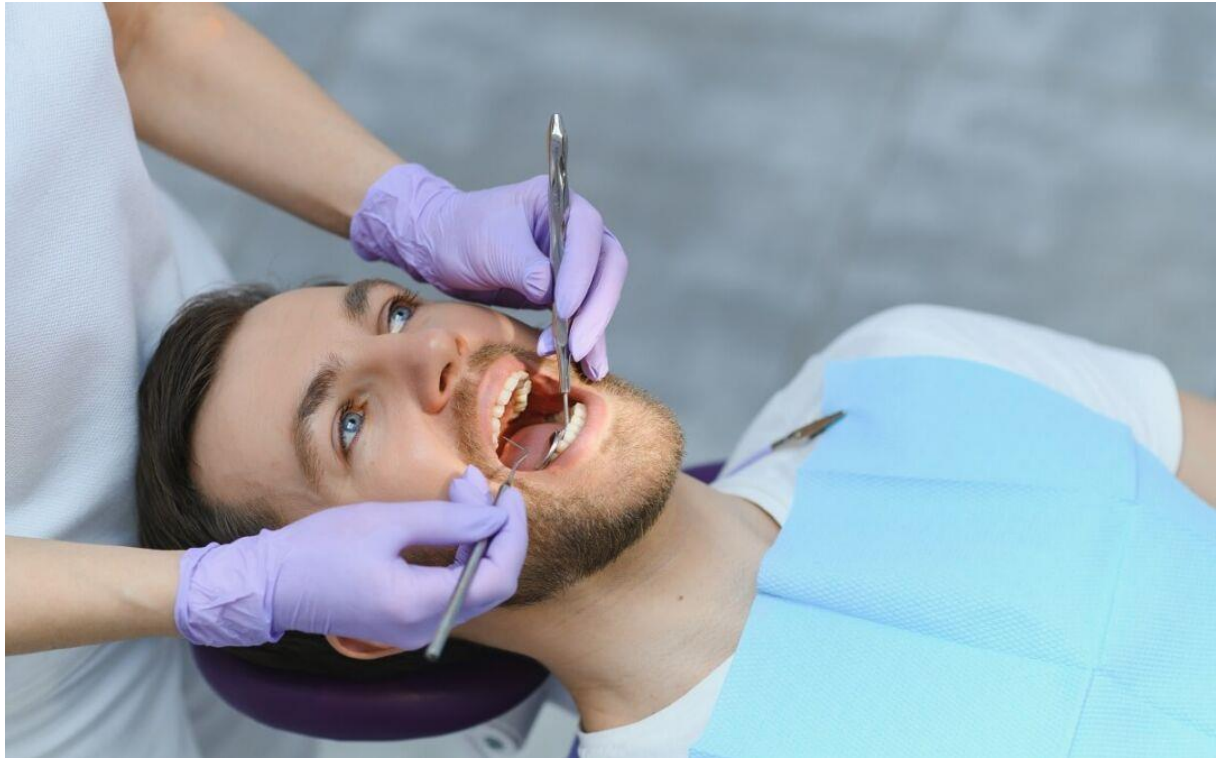
### **When should I see my dentist?**

See your dentist every 6 months, or as often as recommended. Regular check-ups help with early detection of decay and other problems. This can avoid painful and costly restorations.



See your dentist immediately if you have toothache, facial swelling, sensitivity with eating and drinking or trauma to your teeth.

### **6.1. The Power Of Preventive Dentistry: Why Regular Check-Ups Matter**



Winning hearts becomes easy with a bright smile that dazzles everyone around you. However, maintaining the health and shine of your teeth is not easy. While brushing and flossing are mandatory for perfect oral health, the importance of regular dental check-ups cannot be ignored. They are necessary for optimum health and care of the pearly whites.

However, most people neglect this aspect and visit a dentist in Hope Island only when they have a toothache or other problem. It is a misconception that you need a practitioner when you have a dental issue in Gold Coast. Instead, you need the practitioner so that there is no dental problem. Here is why regular checkups matter. It will help you understand the power of preventive dentistry and its benefits.

#### **Identify Dental Problems Early**

Teeth and gum problems can remain hidden for a long time and surface only when they have done the damage. Thus, it is imperative to visit professional dentist Hope Island every six months to detect oral problems at an early stage. They can easily diagnose problems like the onset of cavities, gingivitis, enamel erosion, etc.

They have the instruments, expertise and equipment to detect problems and start the treatment before it can escalate into something serious. An X-ray at the clinic can provide a clear picture of the status of the teeth and help in the treatment process. It saves the cost of undergoing expensive treatments at a later stage.

### **Understand the Right Brushing Technique**

Brushing is the most important part of maintaining oral health. However, most people brush their teeth in a hurry in the morning and forget about it while going to bed. Improper brushing is one of the primary reasons for plaque build-up that leads to cavities and gum problems.

Your dentist will explain the right brushing and flossing technique to ensure perfect cleaning of the hard-to-reach corners. They will also guide you in using the right toothpaste and help you identify the time to change your toothbrush. These instructions help maintain optimum oral health.

### **Learn About Healthy Foods for Teeth**



Dentists provide valuable information during the regular check-ups that are needed to maintain a bright smile. They often recommend a healthy diet and suggest avoiding foods that can harm your teeth and gums. They are aware of the foods that can benefit your teeth and overall health and offer a diet plan that can be followed easily.

They will also inform you about the harmful effects of smoking and excessive alcohol consumption on mouth health to help you restrict them. Visit the practitioner will allow you to lead a healthy and wholesome life.

### **Undergo Professional Dental Cleaning**

Brushing and flossing may not be able to reach the corner areas where bacteria can lurk and start building plaque. The hardened plaque cannot be removed at home and if neglected it can lead to cavities and tooth decay. Besides causing pain, the treatment can be exasperating.

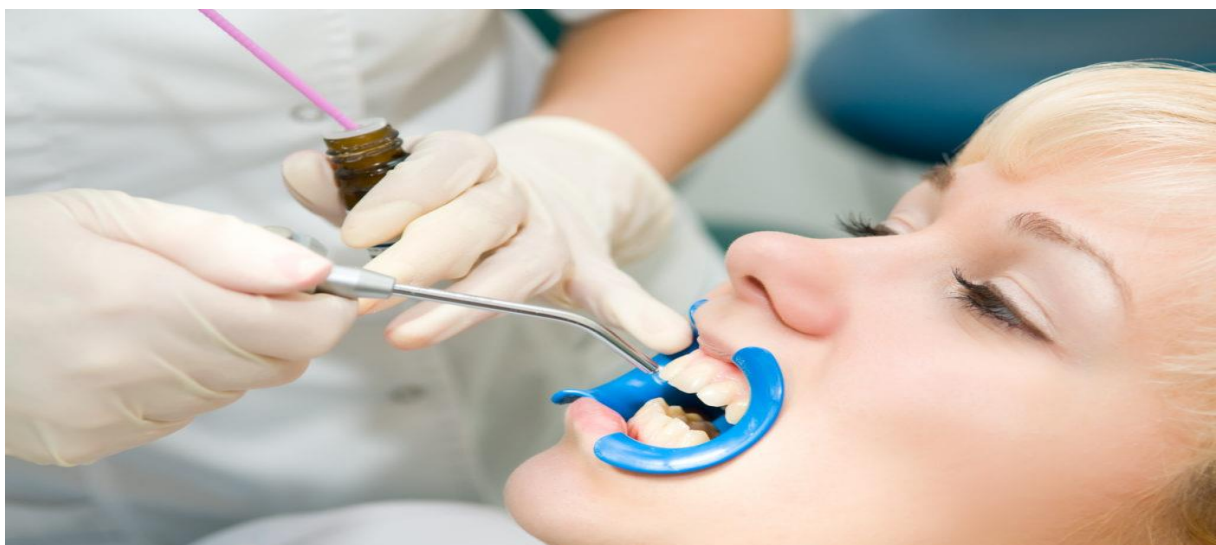
Thus, visiting dentists in Hope Island will help you get rid of plaque and prevent cavities. They perform professional cleaning to remove the build-up that can inflame the gums and cause tooth troubles.

### **Customised Care for Your Teeth**

Following general guidelines for oral care is not enough because every individual has a different oral hygiene regimen and dental problems. After a thorough examination, individuals can gain insights into the hygiene and health status of their mouths and receive tailored recommendations for preventive dentistry.

For example, many children are prone to developing cavities because of their bad eating habits or genetics. The dentist can apply sealants on their back teeth to ensure their teeth remain healthy despite their habits. Similarly, they can address specific concerns and provide solutions that help resolve the issue.

### **Get Screened for Oral Cancer**



Oral cancer can impact the inner walls of the mouth, tongue and lips. If not detected early, it can quickly spread to the head and neck area and lead to the death of the patient if not

treated. Most Hope Island dentists include oral cancer screening in regular check-ups to identify early signs and prevent its acceleration.

It is a life-saving benefit that should not be ignored, especially by people who smoke or use tobacco. Excessive consumption of alcohol can also increase the risk of a life-threatening disease. Thus, symptoms like mouth pain, ear pain, painful swallowing and mouth sores that do not heal should not be ignored.

### **Get Rid of Dental Anxiety**

Visiting your dentist helps you build a relationship with the practitioner, and they become your family dentist. It helps to reduce the anxiety of sitting on a chair in the dental clinic in Gold Coast, which is common among children. Adults can also suffer from the phobia of visiting a dentist if they have not been in the habit of getting their teeth checked.

Thus, the best way to prevent dental anxiety that can become a roadblock in treatments is to opt for regular check-ups from childhood. It sets a good example for children who can focus on good oral health at an early age.

### **Conclusion**

The journey of dentistry from its ancient origins to modern scientific practice underscores the dynamic evolution of medical knowledge and technology. What began as basic attempts to alleviate oral pain with primitive tools has grown into a sophisticated healthcare field, deeply integrated with advances in medicine, biology, and technology. Milestones such as the discovery of anesthesia, the advent of X-ray imaging, and the development of biocompatible materials have not only enhanced treatment options but also improved the safety, comfort, and precision of dental care. Today, dentistry emphasizes prevention, minimally invasive techniques, and patient-centered care, reflecting society's broader focus on holistic health and quality of life. As research in genetics, regenerative medicine, and digital technologies continues to advance, the future of dentistry holds even greater potential to transform oral healthcare. By building on centuries of innovation, dentistry will remain at the forefront of medical science, committed to improving both oral health and overall well-being for generations to come.

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