

City Talk

Oral care today result of gumption and innovation



Nuts and bolts

Edmund Leung

One of the most important elements of our health is dental care.

Properly done, it not only ensures our teeth is in good order but also prevents decay and ensuing painful and expensive remedial treatments.

Some of us understand the vital importance of brushing twice a day from our time in kindergarten.

But we tend to take the technical features of cleaning equipment for granted, such as toothbrushes, dental floss and the recent popularity of interdental brushes.

In the old days, we used just toothbrushes made of bristles.

They helped keep our teeth bright and white, especially when the appropriate toothpaste was used but were not effective in cleaning the crevices in between.

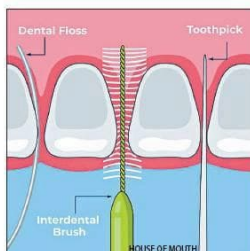
But those interdental spaces are, unfortunately, where we need to keep clean the most.

Failing to do so often results in decay and gum inflammation.

The past two generations suffered a lot from these problems and people often ended up with most of their teeth extracted and replaced with dentures, weakening their ability to enjoy good food, especially those that require some chewing.

Way, way earlier cleaning devices were just twigs and leaves, and when the toothbrush was invented the first ones were made with swine bristles embedded in straight wood handles.

Modern toothbrushes are designed



for efficient cleaning, with nylon bristles and plastic handles of different shapes and sizes to suit different grips and ways of brushing to reach most parts of our teeth.

The heads can be contoured and shaped for best comfort to reach all parts of the teeth and gums.

The newest variations have different grades of bristles arranged in patterns so that stiffer ones clean the teeth effectively while softer varieties massage the gums.

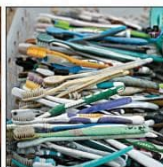
With battery-driven devices these days there is wider use of electric toothbrushes, either the sonic or the rotating type.

The sonic toothbrush vibrates from 20,000 to 40,000 times a minute and can clean more than one tooth at a time.

The rotating brush spins at around 8,000 times per minute but are more effective in cleaning individual teeth.

The jury is still out on which is a better tool, but both are considered more efficient than the traditional manual brushes by dentists.

Both types of electric toothbrush are highly technical devices.



Dental care has seen, clockwise from far left, a German, in a throwback to the Middle Ages, use a brush made with fir bristles; discarded toothbrushes found by activists at a Shandong beach last month; a smart toothbrush; a child getting a look at what the future may hold for her teeth in a University of Hong Kong event this month; a learning experience at HKU; and SAR inventor Matchy Ma with a brush that cleans all surfaces - interdental, retromolar and sub-gumline niches. AFP, AP, XINHUA



The compact electro-magnetic and mechanical components powered by rechargeable batteries are all fitted in the handle to provide power to vibrate the brush head.

The battery allows the brush to be used for weeks without having to recharge.

To complement toothbrushes, dental floss and interdental brushes help to clean between teeth much more effectively, especially parts near the gum.

Modern dental floss has evolved far beyond simple cotton threads that were used in the past century.

Research and development on fabrics has created a tough thread base for effective cleaning with a coated surface for smoother action.

While dental floss is relatively simple, interdental brushes are much more sophisticated.

These brushes have tiny bristles

mounted on thin steel wire strands.

A variety of sizes and angles of reach are available to suit the width and layout of various teeth crevices.

The development of effective teeth cleaning tools is a joint effort between dental surgeons and engineers.

Once again, it clearly demonstrates the hard work of engineers behind the scenes to provide solutions to problems, be they in transport infrastructure, production facilities for high-tech systems, or biomedical applications.

Dental equipment is just one clear-cut example of how effectively they serve us. **Veteran engineer Edmund Leung Kwong-ho casts an expert eye over features of modern life**

'Tis the season to be jolly with Winterfest



Over recent weeks, Winterfest has transformed the city's urban landscape into a vibrant winter wonderland.

Christmas lights and decorations are everywhere, creating a magical atmosphere that brings everyone joy and seasonal cheer.

With typhoon season behind us and humidity levels low, many consider this the best time of year in Hong Kong.

The crisp, clear days are perfect for sightseeing and ideal for those seeking a break from bustling city life to venture into the countryside or outlying islands, adding a touch of adventure to the season.

One of the most anticipated features of this year's Winterfest is the enchanting Christmas Town at WestK.

The centerpiece is a towering Christmas tree sparkling against the breathtaking backdrop of Victoria Harbour.

It invites families and friends to



CULTURAL EXCHANGE
BERNARD CHARNWUT CHAN

immerse themselves in the festive spirit, promising a unique and exciting experience.

Santa's Christmas Lodge embodies the season's spirit and the WestK Christmas Market is a delight for the senses.

More than 35 fantastic stalls offer a delightful array of culinary treats and unique gifts, promising to create unforgettable memories and fill visitors with joy and excitement.

Hong Kong hosts various cultural activities every day, but one special treat is the inaugural exhibition of Notre Dame de Paris: The Augmented Exhibition.

Five years after the devastating fire that swept through Notre Dame Cathedral, as viewers around the globe watched its spire

fall and roof cave in, restoration work has finally finished, and the cathedral reopened to great fanfare in the presence of world leaders.

This groundbreaking production blends immersive augmented reality technology with fascinating historical artefacts.

It takes audiences on a captivating journey through the cathedral's remarkable 850-year history, making it worth visiting.

To top it all off, A Symphony of Lights enhances the evening entertainment around Victoria Harbour with its breathtaking light and sound spectacle, featuring the stunning M+ facade as part of this internationally renowned multimedia experience.

The beauty of Winterfest is that its magical blend of festive cheer, cultural richness and unforgettable experiences brings everyone joy and happiness.

Bernard Charnwut Chan is chairman of Tal Kwun Culture & Arts Co Ltd