

DENTAL TECH

# The clever dental innovations your smile needs

Cosmetic dentistry has evolved, which is great news for those keen to tweak their not-so-pearly whites. From high-tech aligners to the new veneers, here's everything you need to know about the faster, cheaper and less-invasive treatments trending now

BY HANNA MARTON

**W**ellness facts: teeth are inextricably linked to our health. But even more closely to confidence. The proof? About one in three adults feel uncomfortable about the appearance of their teeth, according to the Australian Institute of Health and Welfare. Who can blame them? You can't scroll social media or turn on the telly without being flashed a perfectly white, straight and veneered set of fangs. Demand for cosmetic dental procedures is higher than an '80s rock star. Everyone wants a smile that could launch a thousand cruise ships.

Thankfully, the cosmetic dentistry industry has come a long way since horsey veneers and metal braces were the only way to achieve a megawatt smile (although the latter are still available and very effective). New techniques and technologies are emerging, from laser gum lifts to AI-assisted clear aligners. And going to the dentist or orthodontist has become a much less excruciating experience, with some dental practices offering spa-esque interiors, treetop views and aromatherapy-infused air conditioning. Here's what's new in the world of gnashers.



PHOTOGRAPHY: ISTOCK

## COMPOSITE BONDING

A technique used in the UK for at least a decade, composite bonding is trending for two main reasons, according to cosmetic dentist Dr Lawrence Neville. It's a less invasive (and often cheaper) alternative to porcelain veneers, which can cost up to \$2000 per tooth. Porcelain veneers might also require significant shaving of a tooth to get a straight profile for fitting the veneer, which has the potential to do long-term damage. Then, much of the tooth needs to be 'replaced' with the porcelain veneer.

Composite bonding, on the other hand, involves applying the same kind of white resin used in dental fillings (for cavities) onto the surface of the tooth, and minimal or no removal of your tooth's precious enamel. "There is almost no drilling of the tooth, which takes away that fear," says Neville. "We just polish the edge of the tooth. Most of the time, when doing composite bonding you're simply 'adding on.'" And because it's usually pain-free, it doesn't require a local anaesthetic.

Composite veneers are more affordable – costing between \$500 and \$800 per tooth – but don't last as long as porcelain ones. They may need to be replaced after five years, says Dr May Chan, co-founder and director of Dental Boutique, whose high-profile clients include Snežana Wood and Martha Kalifatidis – particularly if you're a lover of coffee or red wine. "Porcelain veneers don't stain over time and can last between 10 and 20 years," says Chan. Very good to know.

## AI ALIGNMENT

From customising your lipstick to driving cars, is there anything artificial intelligence (AI) can't do? It can even tell you when it's time to change your clear aligner. When



“*If your procedure is over an hour, it can be safer to do it under anaesthetic*”

– DR MAY CHAN

straightening teeth with a product such as Invisalign, your dentist or orthodontist doles out a series of different aligners, which slowly move your teeth into new positions. Sounds simple, right? In late 2022, Invisalign launched an AI-assisted system that could significantly cut back on time in the dentist's chair.

"Using an app on their phone, the patient scans their mouth every week, the dentist or orthodontist checks the result, and a traffic light is relayed to the patient," explains Neville. "A green light means you can move on to the next aligner, an amber light indicates you need to wait a bit longer, and a red light is a sign to contact your health provider because something's not quite right. We will be talking to the patient using text messaging. It's still fairly new, but I think it's the future of teeth straightening."

## GENTLE VIBRATION

A vibrator for your mouth? Yes, it's a thing. While it probably won't give you an orgasm, there are several 'orthodontic accelerators' on the market that claim to speed up the movement of your teeth using gentle vibrations, while undergoing orthodontic treatment. The device often looks like a mouthguard with an electronic controller attached to it.

"The manufacturers of these devices make some big claims, but, as far as I'm aware, there's no real evidence teeth can move faster this way," says Neville. "We know from research over many years that teeth require a slow, gentle, constant pressure, and we can't expedite that process." Modern orthodontic treatments can be swift anyway, with Invisalign, for example, citing anywhere from four to 18 months to achieve major smile-overhaul results, depending on the case.

## GUM LIFT

How about a face lift for your mouth? Yep, that's also a thing. "For some patients, when they smile you see a lot of gums either due to a longer, overdeveloped maxilla [upper jaw] or thin lips," explains Chan, who's undergone the procedure herself. In a gingivectomy, commonly known as a gum lift or recontouring, the gum line is essentially trimmed using a laser, exposing more of the teeth. "This is often done in combination with veneers because once you lift the gum, you need a veneer to cover the exposed roots," says Chan.

Recovery takes about seven to 10 days, but the impact on overall self-esteem can last a lifetime. In a meta-analysis by researchers in Brazil, all the studies evaluated found patients were satisfied with their smiles after a gingivectomy, which boosted their aesthetics and

confidence. In short? A little down time that could well be worth it.

## SEDATION DENTISTRY

One of the biggest issues in the dental world? Fear of stepping into the surgery, which affects about one in six Aussie adults, according to The University of Adelaide. While anxiety management techniques and good two-way communication are preferable, some patients opt to snooze through their treatments. Literally. Conscious sedation, also known as twilight sedation, involves administering just enough sedative or anti-anxiety and painkilling drugs to relax a patient – but not enough to lose consciousness. Patients can still respond to the dentist, but don't remember their time in the chair. It's often used for other medical procedures, such as colonoscopies (which most people like to forget).

This is different to a general anaesthetic (GA), which renders patients temporarily unconscious and unable to respond to stimuli or breathe on their own. "If your procedure requires more than an hour, it can be safer and better to do it under general anaesthetic," says Chan. For shorter procedures, GA is a last resort, she insists. "It would only happen for patients who've had such bad trauma they won't even step into the dentist's room; their teeth might be in very bad condition after years of neglect. We literally consult with them in the waiting room," explains Chan.

What Chan finds, however, is that after treatment under GA the trust builds and those patients are more at ease, returning for six-monthly check-ups without sedation – and with a smile on their face. And when it comes to stronger, healthier pearly whites, that's definitely the aim of the dental game.

## Flash those pearly whites

Whether it's hyaluronic mouthwash or colour-correcting toothpaste, say cheese with these DIY smile-improvers



- 1 Foreo Issa Electric Toothbrush, \$235, adorebeauty.com.au;
- 2 Oh! Care Mouthwash, \$26, smileboosters.com.au;
- 3 Hismile HA5 Hyaluronic Serum, \$31, hismileteeth.com;
- 4 Gem Premium Natural Mouthwash, \$18, gem-products.co;
- 5 White Glo Purple Toner Tooth Serum, \$15, whiteglo.com;
- 6 Panasonic Portable Water & Air Flosser, \$160, shavershop.com.au;
- 7 Go2 Dentagene Flosspyx, \$4 (for 36), chemistwarehouse.com.au