Embracing the Future: How Cutting-Edge Dental Technology Enhances Your Care – Victorian Dental Group

Canonical: https://www.victoriandentalgroup.com.au/blog/embracing-the-future-how-cutting-edge-dental-technology-enhances-your-care/

Details:

Dentistry has changed considerably in the last decade, and most of the change has been in the same direction: seeing more before treating, and treating less when you do.

Here is what the technology actually does, what we use at Malvern East, and — just as importantly — what it does not do.

Seeing the problem earlier

Some dental problems have few early symptoms. A cavity may cause no symptoms at first, while deeper decay can cause sensitivity or pain. Imaging is what closes that gap.

On-site OPG. We have an OPG (orthopantomogram) machine at the clinic — a single panoramic image of both jaws, all the teeth, the sinuses and the jaw joints. It is how wisdom teeth are assessed, how impacted teeth are located, and how problems below the gumline are found. Having it on site means no second appointment somewhere else.

Digital X-rays. These replaced film. The practical difference for you is a lower radiation dose than the film equivalent, an image available immediately, and one that can be enlarged and shown to you on screen rather than described.

Diagnocam. An intraoral camera system that transilluminates the tooth — shining light through the enamel so that decay shows as a dark shadow. It helps find decay between teeth without radiation, and it lets you see what we are seeing.

That last point matters more than it sounds. It is much easier to make a decision about your own tooth when you can look at it.

Which image answers which question

Image	What it shows	Typically used for
Bitewing X-ray	Where teeth touch, and the bone level between them	Decay between teeth; early bone loss
Periapical X-ray	One tooth, root tip included	Toothache, abscess, root canal, trauma
OPG (panoramic)	Both jaws in one image	Wisdom teeth, impactions, jaw joints, general overview
Intraoral photograph	What the surface looks like, magnified	Showing you a crack, a worn area or a failing filling

Transillumination	Shadows within the enamel	Finding decay between teeth without radiation

No single image answers everything, which is why your practitioner should be able to say what a particular film is for before taking it.

Radiation, in proportion

A fair question, and it deserves a real answer rather than "it's very low".

Modern digital dental radiographs use a very small dose — far smaller than the film X-rays most adults remember, and small relative to the background radiation everyone receives simply from living. Lead shielding and a thyroid collar are used where appropriate, and the beam is collimated to the area being imaged.

The principle that governs it is that every image should answer a question. That is why radiographs are not taken at every visit, and why an interval that suits someone with active decay is different from one that suits someone who has not had a cavity in a decade.

You are entitled to ask what a film is for, and to decline it. Declining means we are working with less information, and we will tell you what that changes.

If you are pregnant , tell us. Routine radiographs are generally deferred; where one is genuinely necessary it is taken with shielding.

Treating less

The second shift is towards conserving tooth structure. Enamel does not grow back, so every millimetre kept is worth keeping.

Air abrasion. For suitable small cavities we can use air abrasion instead of a drill — a fine stream of particles that removes decay without the vibration, heat or noise. It often means no needle. It is not suitable for every cavity, particularly larger or deeper ones, but where it applies it is a gentler visit.

Amalgam-free. We do not place amalgam (silver) fillings. Tooth-coloured composite bonds to the tooth, which means less healthy tooth needs removing to hold the filling in place.

Preventive sealants. A coating over the grooves of the back teeth, where decay can begin. A sealant can help protect these grooves when clinically appropriate.

What you may read about elsewhere

A quick, honest guide to the technologies commonly marketed, and what each genuinely does. Not everything here is available at every practice, including ours — ask before assuming, at any clinic.

Cone-beam CT (CBCT). A three-dimensional scan, used mainly for complex implant planning, impacted teeth near a nerve, and some surgical assessments. Higher dose than an OPG, so it is used where a 3D answer is genuinely needed rather than routinely. Where a case calls for one, we refer.

Intraoral scanners. A wand that captures a digital model of the teeth instead of a tray of impression material. More comfortable for people who gag, and the file can be sent to a laboratory electronically. The accuracy of a well-taken conventional impression is not in question; the comfort difference is the main gain.

CAD/CAM same-visit crowns. A crown milled in the practice while you wait. The attraction is one appointment and no temporary. The trade-off is that a laboratory ceramist can do things by hand that a mill cannot, so for demanding front teeth many practitioners still prefer laboratory work.

Lasers. Used in some practices for soft tissue procedures and in some restorative applications. Genuinely useful for particular tasks. Not a universal replacement for a drill, and not a reason in itself to choose a practice.

AI-assisted radiograph reading. Software that flags possible decay or bone loss on an X-ray for the dentist to review. Promising as a second pair of eyes. It does not diagnose, and a flag is a prompt for a human decision, not a verdict.

Teledentistry. Useful for triage, for post-operative check-ins and for reviewing a photograph of something that has changed. It cannot replace an examination, because half of what a dentist relies on — probing, percussion, radiographs — cannot be done down a video call.

Direct-to-consumer aligners. Ordered online, with impressions taken at home and no in-person examination. The concern is not the aligners; it is the absence of a practitioner who has examined the gums, taken radiographs, and is monitoring the roots while teeth are being moved.

The technology you never see

Worth a mention because it is the part patients most often wonder about and least often ask about.

Sterilisation. Instruments are cleaned, inspected, bagged and sterilised in an autoclave, with the cycle monitored and recorded. Single-use items are used once. Surfaces are barrier-protected or disinfected between patients. Water lines are managed. This is standard practice in Australian dentistry and it is governed by national infection control guidelines.

You are welcome to ask about it. Nobody minds the question.

Records. Digital records mean your radiographs, photographs and treatment history are available at every appointment and can be sent on if you move practices — your records are yours to request. Health information is protected under privacy law, and a practice should be able to tell you how yours is stored and who can access it.

What technology does not change

This is the part usually left out of pages like this one.

Better imaging finds problems earlier. It does not make treatment painless, guarantee a result, or replace clinical judgement — an image shows what is there, not what should be done about it. Two dentists can look at the same X-ray and reasonably reach different conclusions about whether something needs treating now or watching.

Equipment also does not substitute for the fundamentals. Brushing twice daily with fluoride toothpaste, cleaning between the teeth, limiting sugar frequency and regular check-ups will do more for your teeth than any device in any clinic. Technology is best understood as a way of catching what those habits miss, earlier and with less drilling.

Be cautious of any clinic — including ours — that markets equipment as a reason to have treatment. The reason to have treatment is a diagnosis you understand and agree with.

Questions worth asking about any technology

What question will this answer that we cannot answer otherwise?

What would we do differently depending on the result?

What does it cost , and is it claimable?

Is there a lower-dose or less invasive way to get the same information?

What happens if we do not do it?

A practitioner who welcomes those questions is a better sign than any equipment list.

Technology at home

Electric toothbrushes with pressure sensors and timers genuinely help, mostly by stopping people scrubbing too hard and by making them brush for the full two minutes. Whether the app is worth it depends on whether you will use it.

Water flossers are a reasonable option for people with braces, bridges or implants, or limited dexterity. For most people, floss or interdental brushes still clean between teeth more thoroughly.

A few others, briefly:

UV toothbrush sanitisers — no meaningful benefit for a healthy person. Rinse the brush and let it air dry

Whitening devices with LED lights sold online — the light contributes little; the gel does the work, and at-home gels are limited by regulation to low concentrations

Smartphone apps that grade your brushing — helpful for some children, ignored by most adults after a fortnight

A disclosing tablet , which costs cents and shows you exactly what you are missing, remains more useful than any of the above

Who provides this here

Victorian Dental Group is a general dental practice in Malvern East and holds no specialist registration. Imaging and treatment are provided by our dentists and oral health therapists. Where a case needs imaging or expertise beyond general practice — a cone-beam scan, complex surgery, orthodontics — we refer to a registered specialist and say why.

Talk it through

If you want to know what we would use in your case and why, ask at your next appointment — or read about our dental examinations , X-rays and OPG and our clinic .

Victorian Dental Group — 291 Wattletree Road, Malvern East VIC 3145 · (03) 9088 5808 · Monday to Friday, 8:00am–5:00pm · book online

General information only, not personal dental advice. See our disclaimer .

What equipment does Victorian Dental Group have on site?

Digital X-ray and an OPG machine, intraoral cameras, rotary instruments for root canal treatment, drill-free air abrasion, digital record keeping, and sterilisation and infection control facilities. Where a case needs imaging we do not hold — a cone beam CT scan, for instance — that is arranged elsewhere and referred.

What difference do digital X-rays make?

A lower radiation dose than the film they replaced, an image available immediately, and one that can be enlarged and adjusted on screen and shared with you or with a specialist. X-rays are still taken only where there is a clinical reason, not as a matter of routine at every visit.

What is a cone beam CT for?

A three-dimensional scan, used where a flat X-ray is not enough — planning implant placement, assessing how close a wisdom tooth root lies to the nerve, or investigating complex root canal anatomy. It involves a higher radiation dose than an ordinary dental X-ray, so it is requested for a specific question rather than as a general look around.

What is an intraoral camera used for?

A small camera that shows you what the dentist is looking at, on a screen. Its value is mainly explanatory — seeing a cracked cusp or a leaking filling yourself makes a recommendation far easier to weigh, and it lets you compare images over time. It is a communication tool rather than a diagnostic breakthrough.

Is laser dentistry better than a drill?

It is useful for particular jobs rather than a replacement for conventional treatment. Lasers are used in some soft-tissue procedures and certain gum treatments, where they can mean less bleeding and a more comfortable recovery. They do not replace the drill for most fillings and crowns, and they do not remove the need for local anaesthetic in most restorative work — claims that laser treatment is needle-free or painless should be treated with scepticism.

Does new technology mean better treatment?

Sometimes, and it is worth being honest about the limits. Better imaging genuinely improves diagnosis and planning. But equipment does not diagnose, and no device removes the need for examination, judgement and a proper conversation about the options. A practice's technology list tells you less about the care you will receive than whether you are given the alternatives, the risks and the costs in writing.

What about electric toothbrushes and apps?

Modern electric brushes with pressure sensors and timers do help — mostly by stopping people brushing too hard and by keeping them going for the full two minutes. App-based coaching suits some people. None of it reaches between the teeth, which still requires floss or interdental brushes, and no gadget compensates for skipping that.

How do I find out what applies to me?

Ask at your appointment which imaging or treatment is being recommended and why, and what the alternatives are. Victorian Dental Group, 291 Wattletree Road, Malvern East VIC 3145 — phone (03) 9088 5808 or email info@victoriandentalgroup.com.au, Monday to Friday 8:00am to 5:00pm. We are a general dental practice and hold no specialist registration.

Does newer equipment mean higher fees?

Not directly. Fees reflect the treatment provided, and you will have a written quote before anything starts.

Can I have copies of my X-rays?

Yes. Ask, and we will provide them.

Is air abrasion available for my filling?

For some small cavities. It depends on the size and depth. Ask at the appointment.

Can you find decay without X-rays?

Some of it. Decay between teeth is often invisible to the eye and to a probe, which is exactly the gap radiographs and transillumination fill.

Do I need X-rays every visit?

No. They are taken when there is a question they answer, which for most adults at ordinary risk means bitewings every one to two years.