

Sustainability in practice: A dental case study

Mydental

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Government
of South Australia

Green Industries SA

This case study was prepared by Rawtec and 2XE for the Australian Dental Association, South Australia, with support from Green Industries SA through the Lead-Educate-Assist-Promote grant program.

It is one of 3 case studies developed to inspire dental practices to strengthen their sustainability and realise the potential cost, efficiency, and environmental benefits.

Mydental is a small dental practice located in Prospect, South Australia. With 4 dental chairs, the practice treats around 25 patients each day. Mydental are committed to improving their business operations while reducing their environmental footprint.

This case study highlights 3 key initiatives that demonstrate their practical approach in embracing sustainability within their daily operations.

To view other case studies and access useful checklists and resources visit the [ADA SA website](#).



Green Industries SA (GISA) acknowledges the Traditional Custodians of Country throughout Australia and their connections to land, water, sky and community. We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

We acknowledge and respect Aboriginal peoples as the state's first peoples and nations and recognise them as traditional owners and occupants of land and waters in South Australia. Further, we acknowledge that the spiritual, social, cultural and economic practices of Aboriginal peoples come from their traditional lands and waters, that they maintain their cultural and heritage beliefs, languages and laws which are of ongoing importance, and that they have made and continue to make a unique and irreplaceable contribution to the state.

We acknowledge that Aboriginal peoples have endured past injustice and dispossession of their traditional lands and waters.

GISA is committed to supporting an inclusive society that recognises the rich histories, cultures and contributions of Aboriginal and Torres Strait Islander Australians. We acknowledge that environmental, social and economic sustainability objectives cannot be separated. The transition to a circular economy needs to be just, and our objective of advancing a just transition to a circular economy will be strengthened by platforming the voices of Australia's First Peoples in this change.

Artist - Karen Briggs

Compostable rinsing cups

Before alternatives were available, many dental practices relied on single-use plastic cups for patient rinsing. After recognising the volume of single-use cups they were sending to landfill, Mydental introduced a compostable cup alternative for patient rinsing in the dental chair and drinking water in the waiting room.

The cups are made from Polylactic Acid [PLA], a plant-based material that looks and feels like conventional plastic, and is certified to Australian Standard AS 4736, making them suitable for composting in South Australia.

Mydental provides clearly labelled indoor bins and signage throughout their practice to support correct disposal for patients and staff. Cups collected in these bins are placed in the council's green food organics and garden organics (FOGO) bin.

In addition, Mydental uses a kitchen caddy to collect food waste and paper towels from staff, which are then placed in the FOGO bin to maximise this service.

Mydental saves around 6,000 rinsing cups from going to landfill each year by using compostable alternatives.

This demonstrates a practical step towards more sustainable waste management in the dental industry.



For more information on composting standards in South Australia, visit the [Which Bin website](#).

Maintaining and donating equipment

Mydental regularly services their equipment, including dental chairs and compressors.

By prioritising maintenance and keeping detailed service records, 2 of their dental chairs have remained in operation for more than 15 years.

This demonstrates a practical way for dental practices to support sustainability and waste reduction while saving business costs.

Mydental underwent an upgrade of their practice in 2021. Some equipment that was still in good working order was no longer needed at their practice. They decided to donate this equipment to the Australian Dental Association [ADA] through their donation program, extending the life of their valuable equipment.

The ADA donation program accepts consumables and equipment for reuse from its members.

Consumables accepted include masks, gloves, and patient bibs in their clean and original packaging.

Acceptable equipment includes items that are in good working order and don't require burdensome ongoing maintenance.

Donated items are distributed to charitable organisations that provide dental assistance to communities onshore and abroad.



Autoclave sterilisation & reusable instruments

Mydental prioritises the use of reusable stainless steel dental instruments, which reduces their reliance on single-use alternatives.

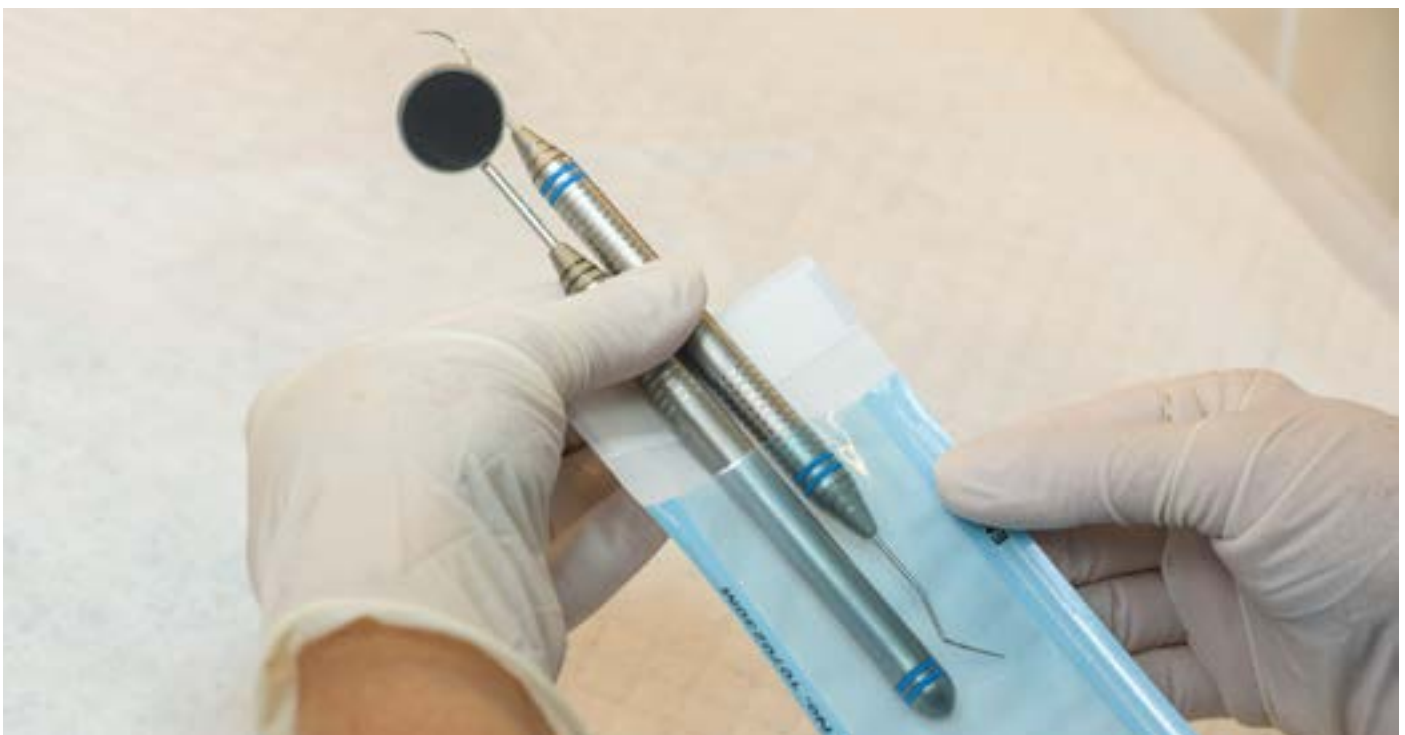
The instruments are sterilised on site using a B-class autoclave.

Where single-use alternatives are thrown out after one use, reusable instruments are collected, placed in an ultrasonic for cleaning, dried and carefully inspected. Once ready, instruments are placed in sterilisation pouches made from a transparent plastic film (for visibility) and a porous paper backing (to allow air and steam penetration).

The instrument packs are completely sterilised by the autoclave, using heat and pressurised steam. After sterilisation, items are ready for use, at which point the packs are opened at the dental chair.

While sterilisation pouches are disposed of after use, the overall environmental impact of reusing and sterilising instruments is significantly lower than producing and discarding single-use alternatives.

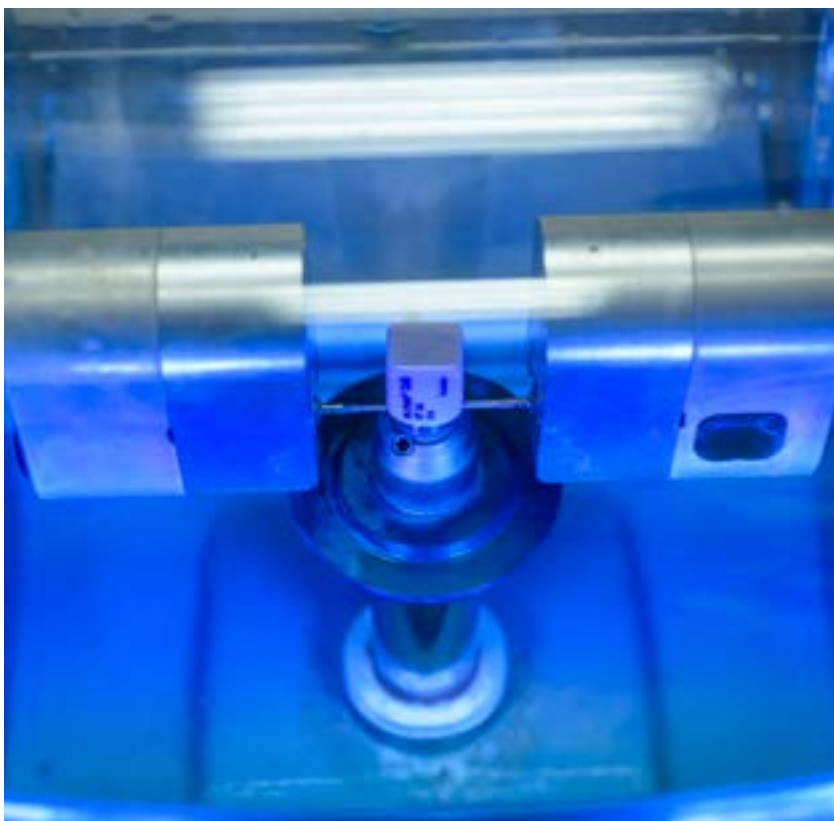
This approach also delivers long-term cost savings by avoiding the ongoing purchase of disposable instruments. Dental practices can further improve sustainability by optimising load sizes and performing regular maintenance on sterilisation equipment.



Other sustainability initiatives

Beyond the initiatives detailed in this case study, Mydental has also adopted a range of additional measures, including:

- offering family and group appointments to reduce patient travel
- ensuring the practice is accessible by public transport
- transitioning to digital patient records to minimise paper use
- replacing paper pamphlets with SMS communication
- limiting promotional giveaways to reduce unnecessary waste
- installing LED lighting throughout the practice to lower energy consumption
- investing in a CAD/CAM machine to reduce patient time, waste, and reliance on couriers.



Mydental demonstrates that small dental practices can achieve meaningful sustainability outcomes through practical, everyday actions.

From reducing waste with compostable rinsing cups, equipment maintenance and donation, and reusable instruments, to improving efficiency with digitalisation and modern technology, the practice has shown that sustainability and patient care can go hand in hand.

Their example highlights how smaller practices can reduce costs, improve operations, and minimise environmental impact by embedding simple, effective initiatives into daily operations.



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