

Guide for sustainable dentistry

Brett Duane
Sara Harford
Darshini Ramasubbu



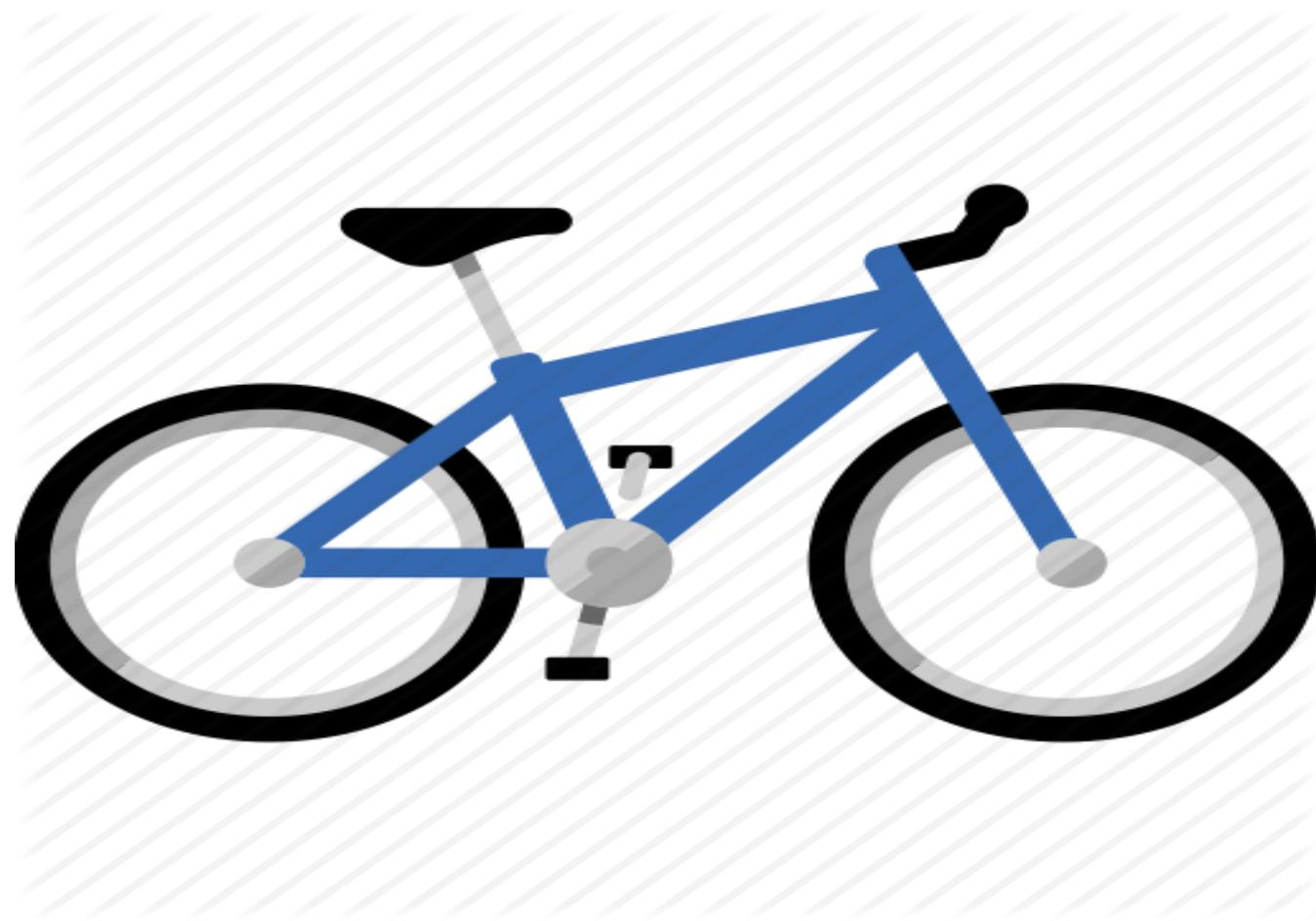
CENTRE *for*
SUSTAINABLE
HEALTHCARE
inspire • empower • transform

Resources

- Centre for Sustainable Healthcare
- Academic papers
- Youtube lectures and videos
- E learning tool
- Guide to Sustainability in Dentistry Resource

Sustainability in Dentistry Guide

Funded by Health Education England















6.0 Sustainable Dentistry: Waste in the Dental Practice



WHY IS IT IMPORTANT?



WHAT DOES SUSTAINABLE PRACTICE LOOK LIKE?

Real life example

Oxford Hospital Trust has ...

Modelled example

Sara is an associate dentist ...



ACTIONS

Key to icons for: ease of implementation  ; £ value  ;
environmental value 

- Action list

You can calculate both the money saved and carbon saved

- Money saved: compare costs of clinical waste collection fees each month
- Carbon saved: Carbon calculator <http://c.environmentalpaper.org/home>



8.2 Sustainable Dentistry: Reduce Plastic Waste

	<h2>8.2 Sustainable Dentistry: Reduce Plastic Waste</h2>



WHY IS IT IMPORTANT?

Plastic is having an increasingly detrimental impact on the environment, biodiversity and health. 79% of the plastic produced over the last 70 years has been thrown into landfill sites or into the environment, with only 9% of it being recycled and the rest incinerated. 8 million tonnes of it goes into our oceans each year. Plastic does not naturally biodegrade and but breaks down into smaller 'micro-plastics'. It releases toxins which enter the food chain and can poison wildlife, destroy ecosystems and put human health at risk.

Dental practices use many plastic products and produce huge amounts of waste plastic from plastic cups, disposable syringes, gloves, single use instruments, oral hygiene products, stationary and more.

Finding ways to reduce plastic usage by limiting the purchase of plastic and plastic-packaged items, encouraging the recycling of plastic items and liaising with manufacturers about their plastic use and sustainability will help to reduce the plastic 'burden' and also costs to your practice.

<https://www.independent.co.uk/environment/plastic-how-planet-earth-environment-oceans-wildlife-recycling-landfill-artificial-a7972226.html>



WHAT DOES SUSTAINABLE PRACTICE LOOK LIKE?

Real life example

Newcastle Upon Tyne Hospitals NHS Foundation Trust have installed a plastic 'baler' to crush and bale segregated plastic bottles used during dialysis treatment sessions, alongside a cardboard baler. Baled cardboard and bottles are collected by SITA UK (the Trust's general waste contractor). The Trust has so far saved £7,384 and an estimated 85.2 tonnes CO₂e.

Modelled example

Susan works as a practice manager for a mixed NHS/Private practice. As a team they have decided to adopt a 'Reduce, Reuse, Recycle' policy to reduce their plastic use and waste. Clearly labelled recycling bins have been placed in all patient and staff areas.

The practice uses pouches for instruments after they are autoclaved, which are part paper and part plastic which are easily separated. There are now small boxes in each surgery, one for the paper and one for plastic part. The nursing staff have carried out an audit and found that this initiative has greatly reduced the number of pouches being disposed of incorrectly into the clinical waste bins.

Susan has been liaising with their dental products and materials suppliers. She has found sustainable alternatives such as from 'Premium Plus Bio' range which are made from biodegradable plastic. The practice has also introduced a selection of sustainable oral hygiene products including bamboo toothbrushes from 'The Humble Brush' and glass jar contained toothpaste, which are becoming increasingly popular with their patients.



ACTIONS

- Provide recycling bins in the practice staff and patient areas for plastic waste 🌍
- Reduce plastic use in the dental surgery: 🌍
 - Consider not putting out plastic cups for patients to rinse with as a standard procedure, but only when needed
 - Use absorbable paper bibs vs. plastic ones
 - Use paper pads or glass/stainless steel pots vs. plastic 'Dappens' pots
 - Use stainless steel impression trays, prophylaxis cups and suction tips
 - Source absorbable paper or biodegradable plastic alternatives for light handle covers and chair barriers vs. plastic ones (e.g. from the 'Premium Plus Bio' range)
- Carry out appropriate waste segregation: ensure uncontaminated plastic doesn't go into the clinical waste stream 🗑️
- Liaise with your product suppliers to source alternative sustainable biodegradable plastic products
- Carry out a plastic audit to see- how much plastic your practice using, how much of it is being recycled and whether all recyclable plastic is being recycled
- Liaise with dental product manufacturers about the sustainability and recycling potential of their products 🌍
- Advertise plastic alternative oral hygiene products e.g. bamboo toothbrushes 🌍
- Avoid using plastic bottles and bags where possible
- Share information and communicate your plastic reduction efforts to patients 😊

You can calculate both the money saved and carbon saved

- Money saved: compare costs of clinical waste collection fees each month
- Carbon saved: Carbon calculator <http://c.environmentalpaper.org/home>



Resource Library

RESOURCES

Case studies

Newcastle Upon Tyne Hospitals NHS Foundation Trust plastic baler:

<http://map.sustainablehealthcare.org.uk/newcastle-upon-tyne-hospitals-nhs-foundation-trust/baling-and-recycling-bottles-cardboard>

Remediating hospital paper cup wastage

<https://networks.sustainablehealthcare.org.uk/networks/eyehealth-susnet/remediating-hospital-paper-cup-wastage-challenges-and-recommendations>

More links

The Guardian: How plastic is damaging planet earth

<https://www.independent.co.uk/environment/plastic-how-planet-earth-environment-oceans-wildlife-recycling-landfill-artificial-a7972226.html>

Ecover sustainable plastic packaging strategy

<http://horizons.innovateuk.org/case-studies/124>

The Guardian: Made from bamboo, pig hair and yoghurt pots, can eco-toothbrushes take off?

<https://www.theguardian.com/sustainable-business/2016/oct/06/eco-toothbrushes-biodegradable-bamboo-pig-hair-yogurt-pots-plastic-waste-landfill>

Bamboo Toothbrushes by The Humble Brush

<https://thehumble.co>

Dental Susnet, online network for improving the sustainability of dental services: <https://networks.sustainablehealthcare.org.uk/dental-susnet>