



# SUSTAINABILITY IN DENTISTRY

## Introduction

Climate change is one of the major challenges in the modern world. In support of the United Nations 2030 Agenda for Sustainable Development, the FDI World Dental Federation has stated that ‘Dentistry as a profession should integrate sustainable development goals into daily practice and support a shift to a green economy in the pursuit of healthy lives and well-being for all through all stages of life’.<sup>1</sup>

The current delivery of dental healthcare is not sustainable due to its high environmental burden, arising from high water and electricity consumption associated with dental equipment, the environmental impact of biomaterials in clinical use, the generation of hazardous waste and the use of radiation. Therefore, individuals within the dental industry and educational institutions have a professional obligation and social responsibility to implement ‘green’ transformations in dental practice.<sup>2,3</sup>

## Purpose

In order to achieve long-term improvement in the sustainability of dental services, those working in delivering or commissioning patient care, including educational

institutions, should encourage the practice of dentistry to transform from hazardous to sustainable.

This policy aims to encourage educational institutions to become proactive in implementing sustainability, through the adoption of environmentally friendly measures and education in healthcare sustainability principles, as part of the undergraduate training curriculum. Addressing the sustainability of services at dental institutions, ranging from the design of clinical pathways to the organisation and delivery of care, will significantly contribute towards reducing dental services' carbon emissions and the development of more sustainable patterns of patient-centred care.

## Scope

This policy applies to the wider EDSA community as raising awareness of 'green dentistry' and developing sustainable frameworks in dental practice and education. The policy does not only protect the immediate health of patients and the dental team but also safeguards the global community and natural resources.

## Policy Statement

EDSA calls on educational institutions to:

- Include sustainable dental healthcare modules in the training of dental health professionals in order to educate on sustainability practices and 'eco-friendly dentistry'.
- Limit the use of disposable/single-use products where possible, without compromising patient safety and quality of care.
- Use digital radiography to eliminate environmentally hazardous lead foils and chemical processing solutions of conventional radiography.

- Encourage the digitization of all records and the use of online tools for communication between patients, faculty and students, in an effort to reduce paper use by avoiding unnecessary printouts.
- Place clearly labelled recycling bins in all areas and encourage the recycling of equipment where possible.
- Install low-energy fluorescent or LED lighting to reduce energy expenditure and carbon emissions.
- Encourage patients, students and faculty to switch to active travel, public transport or car-sharing in an effort to reduce carbon emissions from travel.

## Roles and Responsibilities

The EDSA Delegates, Board of Directors and Officers, Supervisory Board and members are responsible for raising awareness regarding the organisation's policy on 'Sustainability in Dentistry' and reviewing it every year in order to monitor and highlight progress.

Educational institutions are accountable for implementing the policy's recommendations as part of a combined effort to promote environmentally sustainable dentistry. However, this policy does not only target the managers of dental institutions but also the wider dental health workforce, including undergraduate students.

## Definitions

<b>Sustainability</b>	The property of being environmentally sustainable; the degree to which a process or enterprise can be maintained or continued while avoiding the long-term depletion of natural resources.
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<b>Sustainable Development</b>	Development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.
<b>Green</b>	Having positive environmental attributes or objectives.

## Related Document

This Policy should be read in conjunction with:

- Centre for Sustainable Healthcare. Sustainable Dentistry; *How to* Guide for Dental Practices. (2018)
- Public Health England. Carbon modelling within dentistry; Towards a sustainable future. (2018)
- ASTM International. Standard Practice for Managing Sustainability in Dentistry. (2015)
- FDI World Dental Federation. Sustainability in Dentistry. (2017)
- World Health Organization. WHO Guidance for Climate Resilient and Environmentally Sustainable Health Care Facilities. (2020)

## Frequently Asked Questions (FAQs)

## Contact

Any queries regarding this policy should be directed to the EDSA Policy Officer (policy\_officer@edsaweb.org).

## Policy Review

This policy will be reviewed by EDSA every year.

## References

1. FDI World Dental Federation. Sustainability in dentistry. (2017). <https://www.fdiworlddental.org/resources/policy-statements-and-resolutions/sustainability-in-dentistry>
2. Mulimani, P. Green dentistry: the art and science of sustainable practice. *Br Dent J* 222, 954-961 (2017). <https://doi.org/10.1038/sj.bdj.2017.546>
3. Duane, B., Lee, M., White, S. *et al.* An estimated carbon footprint of NHS primary dental care within England. How can dentistry be more environmentally sustainable?. *Br Dent J* 223, 589-593 (2017). <https://doi.org/10.1038/sj.bdj.2017.839>

## Version Control

	<b>Document Name</b>	<i>Sustainability in Dentistry</i>
	<b>Version Reference</b>	<i>Version 01</i>
	<b>Document Owner</b>	<i>EDSA</i>
	<b>Approved by</b>	<i>Approver name and date here</i>
	<b>Date</b>	<i>Publishing date here</i>
	<b>Review Date</b>	<i>Review date</i>