

FDI POLICY STATEMENT

Bisphenol A in Dentistry

Revised version adopted by the FDI General Assembly: 2026, Prague, Czech Republic

Original version adopted by the FDI General Assembly: 2013, Istanbul, Turkey

CONTEXT

Bisphenol A (BPA) is a synthetic compound used in many consumer and industrial products and has drawn public concern for its potential endocrine-disrupting effects. In dentistry, BPA is not intentionally added to materials but may occur in trace amounts through certain monomers derived from BPA, such as bisphenol A-glycidyl methacrylate (Bis-GMA) and bisphenol A dimethacrylate (Bis-DMA), which are used in some resin-based dental materials including some fissure sealants, filling, luting, core build-up, and computer-aided design/computer-aided manufacturing (CAD/CAM) materials as well as bonding agents for orthodontic brackets and bands. Patients could be exposed to minute amounts of BPA occurring primarily during the first 24 hours after intraoral placement of a material. Lower-level exposure can occur through the breakdown of some materials over time, too. Other factors influencing the amount of BPA exposure include the quality of polymerization of the material as well as intraoral pH, temperature, and mechanical conditions.

SCOPE

BPA is a component of monomers in a variety of materials used in oral health care. Its use is becoming more regulated in certain countries and jurisdictions. This policy aims to provide recommendations for minimizing exposure to BPA and reducing or eliminating its presence when providing oral health care.

DEFINITIONS

Bisphenol A: a synthetic organic compound used by various industries in resin materials¹.

PRINCIPLES

BPA is a known endocrine disruptor² that can be present in trace amounts in some dental materials. Health-based guidance values are under review and vary by jurisdiction. Prudence would support the ideal of eliminating exposure.

Precaution and Proportionality

Efforts to minimize unnecessary exposure to substances of concern, including Bisphenol A, should be guided by scientific evidence and applied proportionately, recognizing that resin-based materials are currently essential to oral health care.

Patient Safety and Trust

Patient safety and transparent communication about dental materials and associated risks are fundamental to maintaining professional and public confidence.

Sustainability and Innovation

Material development targeted at eliminating BPA exposure should improve patient outcomes while advancing environmental responsibility, consistent with Vision 2030 and the UN Sustainable Development Goals.

POLICY

FDI urges all stakeholders – including regulators, manufacturers, researchers, and oral health professionals – to work collaboratively to eliminate BPA exposure from dental materials through:

- considering that BPA is an endocrine disruptor at low exposure levels with human exposure limits that are not fully understood.
- recognizing the current importance of resin materials in providing oral health care while promoting their safe and responsible use.
- ensuring maximum polymerization of intraoral materials is achieved through various methods including the appropriate use of intraoral curing lights.
- ensuring maximum polymerization of CAD/CAM materials, especially for printed resins.
- supporting research that pursues the development and adoption of alternative materials that do not contain BPA or related compounds.
- encouraging programmes and initiatives focused on the prevention of dental caries to reduce the need for the use of intraoral resin materials.

KEYWORDS

Bisphenol A, dental materials, resin

DISCLAIMER

This policy statement reflects the best available evidence at the time of writing. It is intended to guide policy across diverse contexts and should be adapted to prevailing cultural and socio-economic conditions.

REFERENCES

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