

BISPHENOL-A IN DENTAL RESTORATIVE MATERIALS¹

1 Introduction

- 1.1 The Therapeutics Goods Authority (TGA) is responsible for approving all dental materials used in Australia.
- 1.2 Bisphenol-A (BPA) is present in many plastic consumer products and has attracted considerable attention in both public and scientific communities due to potential adverse health effects.
- 1.3 BPA as such is not a formula ingredient of any dental material. Nevertheless, dental products may contain traces of BPA as a result of manufacturing processes.
- 1.4 Patients with some types of resin-based dental materials could be exposed to minute amounts of BPA, occurring primarily during the first 24 hours after placement of a restoration.
- 1.5 The potential release of BPA from the dust derived from finishing, polishing and removal of composite is currently under investigation.
- 1.6 The potential influence of BPA released from dental materials depends on a number of factors, e.g. the type and magnitude of their biological effects in humans, and the sensitivity and validity of the analytical methods for determination of BPA in different body fluids.
- 1.7 There is limited scientific literature assessing the exposure and release of BPA from resin-based dental materials, as well as its potential oral and systemic effects.
- 1.8 The environmental concerns about BPA are well established.

2 Principles

- 2.1 The appropriateness of resin-based dental materials for both restoring teeth and preventing caries is well established.
- 2.2 BPA use is not required during the manufacturing process of resin-based dental materials.
- 2.3 The risk assessment of BPA in dentistry should be based on relevant biological endpoints.

3 Policy

- 3.1 Dental materials approved by the TGA should be freely available.
- 3.2 Further research on exposure and release of BPA from resin-based dental materials and the relevant clinical implications including how BPA is absorbed and cleared by the body, is strongly recommended.
- 3.3 BPA must not be used during the manufacturing process of resin-based dental materials.

¹ This Policy Statement is linked to other Policy Statements: 2.1 *National Oral Health*, 2.2.6 *Elective Overseas Dental Treatment*, 6.8 *Evidence-Based Dentistry*, 6.12 *Custom-Made Dental Prosthesis and Appliances*, 6.18 *Safety of Dental Amalgam* & 6.19 *Minimal Intervention Dentistry*

- 3.4 There should be programmes and initiatives to raise awareness of the importance of prevention of dental caries, in order to reduce the need for dental restorative materials.

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