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**Analysis of Resin-Based Dental Materials Able to Release Monomers**

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**Objectives** First, to provide an exhaustive list of all the resin-based dental materials sold in the market in 2023 and detail their monomer composition and second, to evaluate the repartition of BPA derivatives in their manufacturing in relation with their applications.

**Methods** a search on manufacturers' websites was performed to reference a list of resin-based dental materials currently on the market. The following categories of dental materials were selected : restorative composite resins and adhesive systems, orthodontic composite resins and adhesive systems, core build up composites, sealants, restorative resin modified glass ionomer cements and luting glass ionomer cements and composites. Then, their monomer composition was determined from material safety data sheets and completed with a search on instruction for use or on PubMed database.

**Results** Among the 543 material compositions exploitable, 382 contained BPA derivatives. Among them, 56.2% contained BisGMA, 28% BisEMA, the most frequently reported. A total of 59 monomers of which 6 BPA-derivatives were found. 309 materials contained UDMA and 292 TEGDMA. Finally, less than one third of materials identified contained no BPA derivatives. These proportions vary, depending on their applications with materials dedicated to dental care of young populations containing the highest proportions of BPA-derivatives monomers.

**Conclusions** Manufacturers should be required to indicate systematically the exact complete chemical composition of their products. The long-term effects on human health of the different monomers identified including BPA-derivatives monomers is a source of concern. For children and pregnant or lactating women arises the question to take a precautionary principle and avoid the use of resin-based dental materials likely to release BPA by opting for alternative materials.