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[\[PDF \(1160K\)\]](#) [\[References\]](#)**Bio-active restorative materials with antibacterial effects: new dimension of innovation in restorative dentistry**[Satoshi IMAZATO](#)¹⁾

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Abstract:

Restorative materials in the new era should be “*bio-active*” and antibacterial effects are highlighted as one of the important properties. In order to achieve resin-based restoratives with antibacterial effects, an antibacterial monomer MDPB has been developed. The primer incorporating MDPB demonstrated cavity-disinfecting effects, and the world's first antibacterial adhesive system employing the MDPB-containing primer was successfully commercialized. MDPB is potentially applicable to various restoratives since immobilization of the antibacterial component by polymerization of MDPB enables no deterioration in mechanical properties of cured resins and exhibition of inhibitory effects against bacterial growth on their surfaces. For glass-ionomer cements used for atraumatic restorative treatment, the approach to provide antibacterial activity has been attempted by addition of chlorhexidine. Incorporation of 1% chlorhexidine diacetate was found to be optimal to give appropriate antibacterial and physical properties, being effective to reduce the bacteria in affected and infected dentin *in vivo*.

Key words:[Restorative materials](#), [Antibacterial activity](#), [MDPB](#)[\[PDF \(1160K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)

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