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[\[Image PDF \(136K\)\]](#) [\[References\]](#)**Influence of Polishing of Denture Base Resin and Metal Surfaces on Wettability with Water and Saliva**[Masamichi NISHIOKA](#)¹⁾, [Yoshihisa YAMABE](#)¹⁾, [Kunihiro HISATSUNE](#)²⁾ and [Hiroyuki FUJII](#)¹⁾

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Abstract:

The purpose of this study was to investigate the influence of the surface roughness of denture base resin and metal on wettability with water and saliva.

Solid specimens were produced using heat-curing denture base resin and Co-Cr alloy.

After polymerizing or casting these materials, specimens with four different types of surface roughness were produced by a progressive polishing process using polishing papers (#240, #400, and #1,000) and cotton buffs.

Surface roughness decreased significantly as the polishing process progressed ($p < 0.0001$).

Contact angle increased as surface roughness in metal specimens decreased, but decreased as surface roughness in resin specimens decreased ($p < 0.0001$). Furthermore, differences in contact angle between tap water and saliva were larger in metal specimens ($p < 0.0001$).

These results suggested that with regard to the tissue surface of a denture base, the influence of its roughness on adhesive force differed according to the type of denture base material.

Key words:[Denture base materials](#), [Surface roughness](#), [Contact angle](#)[\[Image PDF \(136K\)\]](#) [\[References\]](#)

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