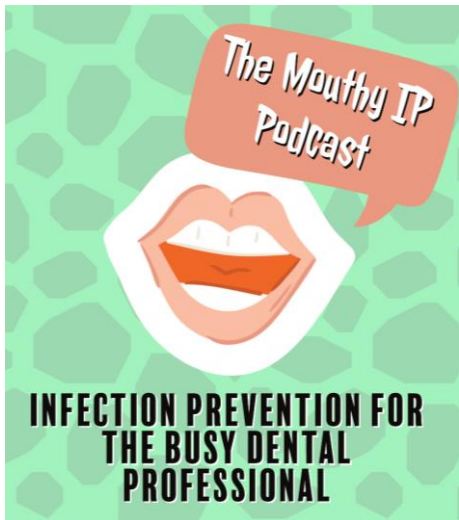


## The Mouthy IP Resources

### Episode 23: Journal Club: Biofilm on and structural damage of rotary cutting instruments after 5 cycles of clinical use and processing



Infection Control Assessment  
and Promotion Program



#### **Summary:**

Dental burs are used in dental practices to remove tissue during restorative and surgical procedures and are notoriously hard to clean and sterilize appropriately. This episode discusses a study that was done that visualized dental burs, both carbide and diamond, after clinical use and sterilization.

The burs studied showed both damage and biofilm after use and sterilization under scanning electron microscope. This reinforces the need to review the manufacturer's instructions for use on cleaning and reprocessing for each dental bur in use. It's also important to remember that most diamond burs are considered single use and should not be reprocessed for a second or

subsequent use. This also falls in line with CDC recommendation on considering any hard to clean item single use to prevent infection transmission.

#### **Resource List:**

1. Journal of the American Dental Association: Biofilm on and structural damage of rotary cutting instruments after 5 cycles of clinical use and processing: [https://jada.ada.org/article/S0002-8177\(23\)00138-1/fulltext](https://jada.ada.org/article/S0002-8177(23)00138-1/fulltext)
2. CDC Summary of Infection Prevention Practices in the Dental Settings: <https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/index.html>
3. CDC Guidelines for Infection Control in Dental Healthcare Settings: <https://www.cdc.gov/mmwr/pdf/rr/rr5217.pdf>