

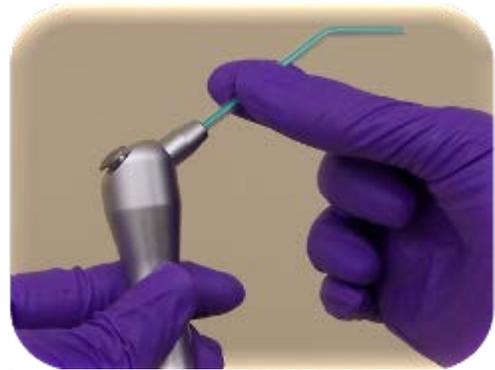
## Single-use Disposables

[Switching from Metal Air/Water Syringe Tips to Disposable Plastic Tips](#)  
[Single-Use Disposable Dental Burs and Endodontic Instruments](#)

### Some “Tips” on Tips (9/11) **UPDATED**

**Question:** Our clinic is considering changing from metal air/water syringe tips to disposable, plastic ones. Is this a good idea, and what are the advantages and disadvantages of switching?

**Answer:** Properly removing bioburden from dental instruments is a major infection control concern within any dental facility. One study has shown that ultrasonic cleaning does not remove all bioburden from within the lumen of metal three-way syringe tips. Although reusable air/water syringe (AWS) tips meet sterilization standards, accumulation of internal bioburden over time could potentially compromise sterilization procedures. Because of this and time consuming cleaning/sterilization procedures, many dental treatment facilities are now using disposable AWS tips. Compared to metal syringe tips, disposable AWS tips are easier to use, more convenient, and enhance infection control. However, before switching to them, there are some things you need to be know. First, some disposable AWS tips require adaptors so they can be properly retrofitted onto the existing dental units. Without these adapters, the tips may not fit securely into the three-way syringe head. Unfortunately, adaptors (which are available for an additional charge) are not made for all brands of dental units. Before you buy disposable AWS tips, ask the manufacturer if they provide adaptors for the brand(s) of units you have. You should also know that some brands of AWS tips lack the ability to swivel, which can make them inconvenient to use because you can't easily rotate them to gain access to certain areas of the mouth. An important limitation of currently-available disposable AWS tips is that none is adequately radiopaque. Although this may seem to be a minor deficiency, reports do exist of patients who have inadvertently ingested AWS tips, as we have noted on our Web site. If the tips are not radiopaque, it would make it very difficult (if not impossible) to locate the tip radiographically for retrieval. Lastly, while it may appear that the cost of using disposable AWS tips is more compared to metal syringe tips, it is important to remember that when determining the cost-effectiveness of disposable and reusable items, considerations must include the cost, time, and materials involved with decontaminating and reprocessing the reusable item, not just the cost of the disposable item.



It is important to consider the above items before switching to disposable tips. As always, the convenience and infection-control benefits must be weighed against concerns of additional cost.

#### Reference

Puttaiah R, Cottone JA, Guildersleeve J, Azmoudeh A, Tenney J. Rationale for using single-use disposable air/water syringe tips. *Compend Contin Educ Dent* 1999;20:1056–1058,1060,1063–1064.

[Return to Top](#)

### Single-Use Disposable Dental Burs and Endodontic Instruments? (Originally published in the May 2003 issue of InCONTROL)

**Question:** Should dental burs and endodontic files be considered single-use disposable items?

**Answer:** A single-use device, also referred to as a disposable device, is intended for use on one patient. It is not intended to be reprocessed (cleaned, disinfected/sterilized) and used on another patient. Single-use devices used in dentistry are usually not heat tolerant and cannot be reliably cleaned. Items may include, but are not limited to, syringe needles, prophylaxis cups and brushes, and plastic orthodontic brackets. Some items such as prophylaxis angles, saliva ejectors, high-volume evacuator tips, and

air/water syringe tips are available in a disposable form, and must be disposed of appropriately after each use. Single-use devices should be sterile at the time of use for any surgical procedure.

Although some devices may be used multiple times, it may often be safer, as well as more efficient and cost-effective to consider them single use. Due to the physical construction of some devices (e.g., endodontic broaches), cleaning tooth and tissue debris from the device safely and efficiently may be difficult. Cleaning and sterilizing dental burs and hand and rotary endodontic instruments may also be difficult. During reprocessing, deterioration can occur on the cutting surfaces of some carbide and diamond burs and after repeated reprocessing cycles, alteration of some types of endodontic files occurs potentially leading to breakage during patient treatment. Several dental supply companies now market single-use dental burs (e.g., Sullivan-Schein, Patterson Dental, SS White, NeoDiamond, TriHawk). If you aren't already using single-use products, the above factors coupled with the knowledge that burs and endodontic instruments exhibit signs of wear during normal use, may make the decision to consider them single-use more practical.

### References

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[Return to Top](#)