

Proper Instrument Care: The “Myth” of Retipping

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Since the beginning of their careers, hygienists have been faced with the dilemma of what to do with an instrument when the working end becomes too thin, worn down, or even broken. For years, it was assumed that the instrument could simply be sent to the manufacturer, and it would be fixed or restored with new tips in the old handle.

This scenario, however, is truly a *myth*. The *fact* is that NONE of the major manufacturers of dental instruments in the US will retip an instrument. The company may replace the instrument with an entirely new one, but be assured that the top-quality instrument manufacturers will not provide their customers with a retipped product.

This *myth* has also been addressed by the Food and Drug Administration (FDA), the federal agency responsible for monitoring dental instruments under the category of medical devices. In general, refurbished devices are available at a reduced cost, but come with an increased risk that the safety and effectiveness of the original device may be compromised. The FDA is aware of the existence of the potential risks related to device remanufacturing and published a compliance policy guide in 1987, revised in 1995, for reconditioners and rebuilders of medical devices that include dental instruments. The

FDA requires, among other regulations, that such a manufacturer clearly and conspicuously disclose its name and address, and the fact that the device was reconditioned or rebuilt. This is intended to serve as a warning to the professional end-user that the device (ie, instrument) has been remanufactured.

Instrument fabrication is a complex process, not simply just placing a tip into a handle. There are issues of balance, alignment, unique characteristics inherent in each company's individual designs, and special procedures to ensure the strength and integrity of the junction of the turning (which consists of the entire shank and blade, commonly referred to as tip) inside the handle. This is the major safety issue in the retipping process. When a turning (ie, tip) is removed from a handle, it must be forcibly extracted to break the inherent mechanical and chemical locking features of the original instrument. Small, almost microscopic, cracks may occur in the hub of the handle. Lateral pressure by the clinician during the scaling process may snap the turning out of the weakened handle. In addition, the microcracks are a portal of entry for the microleakage of organisms and debris into the hollow handle. When a new turning is force-fit into the weakened handle, further damage may result. The original dimensions at the hub of the handle may have been altered, making it impossible to replicate the precision-fit with small gaps occurring at this critical junction. The handle is the least expensive segment of an instrument. Is it worth using an old handle that has been compromised in the refurbishing process? Why would a professional knowingly pay for such risks? Remember, the FDA has warned the end-users by requiring specific labeling.



Figure 1. Crack in instrument handle.



Figure 2. Retipping of an instrument

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