

Handpiece maintenance – the inside story

The handpiece maintenance dilemma and how to solve it

By Julian Hodges



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Are you caught between two evils?

There is little or no doubt that autoclaving and meeting the demands of infection control procedures has increased the cost and complexity of dentistry. Fortunately there are ways to immediately reduce this impact. The focus of this article, therefore, is to solve the dilemma and put money back in your pockets.

You may find the alternatives I present are not as attractive as you hope. Should this be so, I remind you of one of Mae West's principles for life, "Whenever I'm caught between two evils, I take the one I've never tried." With handpiece maintenance it may be time for you to do just that!

What has been going wrong?

This statement says it all. *'More than 70% of handpiece failures are due to insufficient maintenance'* – KaVo.

While the repair industry has some responsibility in its drive to get business through lower prices by substituting cheaper, lower quality parts or not replacing critical components, the main cause of premature handpiece failure rests within the dental surgery. This being the case, what do you have to do to put an end to the problem?

The solutions

There are two strategies:

1. Bring your traditional handpiece maintenance procedures up to best practice levels. This is not as simple as it may seem. Constant vigilance and discipline is required and the handpieces must be purged of lubricant and debris prior to autoclaving. As a consequence busy practices may experience operational difficulties and bottlenecks as well as high levels of airborne lubricant.
2. Purchase and install a good handpiece maintenance unit. This obviously requires spending money but, purchase the correct unit and it, like a sound investment, will pay you high dividends.

Six benefits of a good, correctly functioning and properly operated handpiece maintenance unit

Practices and practice staff maintain handpieces to the best of their knowledge and ability. As repairers we open up handpieces, so we see how well they've been maintained – we know what they have had for breakfast!

More often than not handpieces are exceedingly dirty, sometimes they are dry through lack of oil, or excess oil residues have been baked onto bearing and gear surfaces in the high heat of the autoclaving process. There is a startling difference when handpieces arrive from a practice that uses a handpiece maintenance unit. The internal surfaces and components are clean and pristine.

Depending upon the design, handpiece maintenance systems will simultaneously process one to six handpieces. Some units have features such as washing, steam back flushing, and autoclaving.

These are the major benefits for you of a good, correctly functioning and properly operated system:

1. Extended service life can be doubled because handpieces are purged of foreign matter and unneeded lubricant is expelled.
2. Repair costs are lower (less technical time and fewer parts)
3. Less staff time spent on handpiece maintenance.
4. Reduction in lubricant costs by up to 90%. (This feature alone may pay for some systems in two years or less).
5. Greater control of maintenance procedures.
6. Less airborne lubricant and therefore a cleaner, healthier working environment.

Nine guidelines for selecting the best maintenance unit for your practice

As maintenance units cost between \$500 and \$9,000, the immediate questions that arise are:

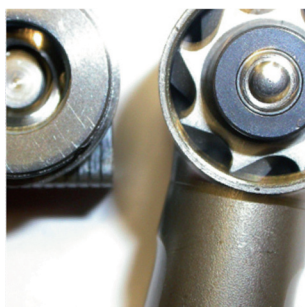
1. If I were to purchase a system how do I know I have chosen the most appropriate unit for my practice?
2. Are there risks and what are the real benefits? That is, am I willing to make the trade; to exchange my money for a new handpiece maintenance system?

Ask these questions as a guide to maximise the results:

1. What reduction in repair frequency and cost can I expect?
2. What is the lubricant usage and cost per cycle per handpiece and what is the annual value of that to you? Units with reservoirs reduce lubricant costs more dramatically than those that use pressure pack cans.
3. How many handpieces will the system simultaneously process and will this match the activity levels within the practice?
4. Can the unit be operated without my consistent supervision and monitoring and how simple is it for my staff to program the unit?
5. Does the unit fully rotate all handpiece types



Not cleaned



Cleaned

or does it only rotate high-speeds? Note: full rotation of low speeds will extend their working life, especially speed increasing and speed decreasing handpieces.

6. Are there different programs for these different handpiece types?
7. Are chip air and water lines purged?
8. What is the installation cost?
9. Is there a service cost? Some systems, but not all, require regular servicing and the fees may be as high as \$750 per year.

Immediate high returns and reduced operational stress

For the 70% of practices, according to KaVo, where handpiece failures are due to insufficient maintenance, there are two alternatives (to a greater or lesser extent all handpiece manufacturers agree with KaVo):

Either bring your lubrication and maintenance procedures up to best practice levels or spend money on a maintenance system.

These may not be your preferred options but if you want a better result than you have right now they are unavoidable. The financial return from either strategy will surprise you, there is a high return on increased effort or capital invested.

If your decision is to continue with hand oiling and maintenance, be under no illusion that continuous attention to correct procedures and the training and monitoring of new staff is of paramount importance. Should you consider installing a handpiece maintenance unit, the dollar savings will usually be greater but be aware that the system you choose must compliment your needs and those of your practice and staff.

Maybe this is where we can assist you and cut through confusion. ◆

The next step. Getting the best result
Free independent advice is immediately available

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About the author:

Julian Hodges welcomes your enquiry. He is a 30-year veteran of the dental industry and knows how to maintain handpieces at their peak whilst gaining greater service durability. Julian's advice is based on his research of all the major systems and literally hundreds of consultations with clients. His company, Handpiece Hotline, is certified and factory trained to repair KaVo, NSK, Sirona, W&H and Lares handpieces. It provides independent, confidential, practical advice on all aspects of handpiece maintenance and is Australia's largest and fastest growing repairer of handpieces.