W&H ECPD Training

Handpiece Reprocessing & Infection Control Training
What Specialist Knowledge can W&H Offer:

- 128 years of dental equipment manufacturing
- Quality, precisions made products
- International Company with UK based Subsidiary
- Decontamination products offering 99% reliability
- Solutions for all treatment fields
- Factory trained, accredited Service Support
Aims

- To understand the theory and practice of W&H handpiece maintenance and decontamination
- To be confident in the reprocessing of W&H handpieces in accordance with HTM 01-05
Learning Objectives

> Why decontamination, cross infection and the correct protocols are important

> Internal cleaning & lubrication options

> How to decontaminate handpieces

> How can we assist you to standardise your practice processes to meet current guidelines, working towards ‘best practice’
Hygiene of the Highest Standard

- Instruments
- Lisa Mobile App
- LisaSafe
- Lisa
- Multidem
- Seal
- Finish
- Assistina
- Internal cleaning and Lubrication
- Lisa Mobile App
- Traceability
- LisaSafe
- Labelling
- Lisa
- Sterilization
- Thermoklenz
- Washer Disinfector Dryer
- Water treatment
- Packaging

Invest in a complete solution! W&H Hygiene offers the most efficient and effective way to clean, lubricate and decontaminate.
What is HTM 01-05?

> Patients deserve to be treated in a safe and clean environment with consistent standards of care every time they receive treatment. It is essential that the risk of person-to-person transmission of infections be minimised as much as possible.

> All dental practices are required to be registered with the Care Quality Commission (CQC). In order to be registered, providers must meet a set of registration requirements including one on cleanliness and infection control.

Why is Maintenance and Decontamination so important for your handpieces?
Would you trust any of these without adequate maintenance?

A dental high-speed handpiece, also known as a turbine, runs at approximately:

- Runs at 2,000 RPM

- Runs at 300,000 RPM

Runs at 360,000 RPM

Would you want stagnant debris being released into your mouth at this speed?
The Decontamination Cycle

Instrument use, traceability & storage

Instrument use, traceability

Sterilization

Internal cleaning, disinfection & effective lubrication

External cleaning & disinfection

Packaging

Don’t Forget: Always complete an external visual check
Why protect yourself?

Who is contagious & who is not?

HTM 01-05 Section 2.4 k.(ii)
Regard all instruments set out for each patient as contaminated after the treatment whether or not they have been used.


PRESENTATION NOTES
You cannot tell who is contagious just by looking at them. If you knew that someone infected with HIV, Hepatitis B or C, or any other infectious disease, had been the person directly before you in the dental surgery, would you be comfortable if you – or one of your loved ones – were the next person to receive treatment? i.e. are you really happy with your infection control procedures?

There is an argument to say that if you knew someone was contagious, you would take additional precautions when treating that patient. But of course, most of the time, none of us knows whether the person sat next to us is harbouring a life-threatening illness – and in many cases, they won’t actually know it either. So you have to treat each and every patient as if they are a potential carrier of a disease that can be spread via dental instruments. Think again about being that next patient – using your current practices, would you be happy to be in their shoes?
Decontamination

There are six stages to the correct reprocessing of a dental handpiece:

- Protective Personal Equipment Preparation (PPE)
- External cleaning
- Internal cleaning
- Effective lubrication
- Pouching, if instruments are not for immediate use
- Sterilization
Cleaning & Disinfection

Manual cleaning & working towards best practice

**HTM 01-05 Section 3.3**

...Within the best-practice framework, however, manual cleaning should be considered only where the manufacturer specifies that the device is not compatible with automated processes or when the washer-disinfector is temporarily unavailable (for example, for repair or validation)...


PRESENTATION NOTES

Handpieces can be cleaned under running water – which will remove contaminants and wash them away from the surface of the instrument. Aerosols can be reduced by being careful when using brushes – keep them away from your face and unprotected areas of skin, and where possible ensure they are held low down in the sink, so that any spray is contained in the dirty sink, rather than being sprayed onto the person doing the cleaning.

If you choose to wash handpieces by immersing them in a sink of water to minimise risk of aerosol contamination, please ensure that they are rinsed thoroughly afterwards with RO water, including internally (to remove contamination from the washing water), then dry them internally using an air syringe, and externally with a clean lint-free cloth, prior to lubrication and sterilization.
PPE Preparation

- Make sure you are protected and using Personal Protective Equipment

**HTM 01-05 Section 6.14**

Appropriate PPE should be worn during decontamination procedures. PPE includes disposable clinical gloves, household gloves, plastic disposable aprons, face masks, eye protection and adequate footwear…


- Make sure that you remove the rotary instrument, e.g. bur, prior to reprocessing

PRESENTATION NOTES

When dealing with any potentially contaminated instruments, it is important to don the appropriate Personal Protective Equipment. For decontamination, it is important to ensure you use heavy duty ‘household’ type gloves, not clinical disposable gloves.

The bur or file should be removed prior to decontamination to allow the cleaning solutions and lubricants to access and flush the relevant components of the handpiece.
External Cleaning

Do Not:
- put handpieces in an ultrasonic bath!
- use tap water due to mineral & lime-scale deposits
- submerge handpieces in chemical solutions

Do:
- use purified/sterilized water or an alcohol free disinfectant wipe
- visually check the handpiece for contaminants under a microscope
How effective are you at Reprocessing and lubricating Your instruments?

- Manual reprocessing with high quality oil
- Correct nozzle
- 100% consistency

**only 30%** removal of old oil, debris and contaminants

- Manual reprocessing with an oil without built in detergent
- Wrong nozzle

**less than 20%** removal of old oil, debris and contaminants

- Automated reprocessing

**over 90%** removal of old oil, debris and contaminants

Automated reprocessing refers to instruments processed in an automatic handpiece maintenance system.
What is the real difference?

A manually cleaned handpiece only has between 20% - 30% of debris removed?

Contra-angle handpiece gearing after conventional maintenance using a manual **oil spray can**

Contra-angle handpiece gearing after automated maintenance in an Assistina with rotational lubrication
Manual Reprocessing

Do:
> Use a good quality oil
> Shake the can well to mix the ingredients
> Use more than one can – each different nozzle should have its own can of oil
> Use tissue to check the oil coming through is clean
> Check that you have the correct nozzle for your handpieces
> Check that the nozzles are still effective

What do you do if?
You have to flick the bur to start the handpiece
Your handpiece sounds rough on the run-down
You need to send your handpieces in for an annual service to W&H Technical Services or a W&H Accredited Technical Service Partner
Lubrication & Washer Disinfectors

HTM 01-05 Section 3.55
Handpieces should be lubricated according to the manufacturer’s instructions. Those that have been processed in a washer-disinfector might have had the lubricant removed and require lubrication again before going into the sterilizer.


We recommend that you lubricate all of your handpieces after external cleaning and before sterilization, regardless of whether a manual or automated cleaning method is used.
What happens if you don’t remove old oil & debris build-up?

Your handpieces are likely, eventually, to fail!

PRESENTATION NOTES

Handpieces are precision instruments, with free-running speeds often reaching as much as 360,000 rpm (compare with a typical car which runs at 7,000 rpm). For all of the components to move smoothly against each other, a layer of lubricant is required.

Ensuring the chucking mechanism is correctly lubricated also facilitates insertion of the bur. If correct lubrication is not performed, then not only may your handpiece not run smoothly (making it more noisy, and reducing performance), the components will wear more quickly, which can lead to premature failure, or the bur may not be held securely in the chucking mechanism. All of these issues have financial implications, or even legal ones.
Pre-sterilization & packaging

HTM 01-05 Section 4.24
Regardless of the packaging used, where instruments are to be stored, the date by which they should be used or by which they are subject to a further decontamination cycle should be clearly indicated on the packaging.

Sterilization

Types of sterilization cycle (from BS EN 13060)

**Class N** – non-vacuum sterilization; suitable for ‘Naked’, solid, unwrapped instruments; **NOT** suitable for hollow instruments like handpieces

**Class S** – may be vacuum or non-vacuum sterilization; only suitable for load types ‘Specified’ by the manufacturer

**Class B** – vacuum sterilization; can process all load types including solid instruments and hollow instruments, ie handpieces
Packaging & Storage Times

According to HTM 01-05, the three options are:

1. Sterilize packaged instruments using a B or S Class cycle → store package for ≤ 12 months

2. Sterilize unwrapped instruments using an N Class cycle, then dry and wrap → store package for ≤ 12 months

3. Sterilize unwrapped instruments using an N Class cycle, then protect from contamination, and either:
   → use within 1 day within a clinical area
   → use within 1 week within a non-clinical area

NB: If an S Class cycle is used, it must be one including a drying cycle
Traceability

Making the link!

Traceability of the sterilization protocol is becoming an ever-increasing requirement to ensure patient safety and to legally protect your practice.

It is now possible to automatically generate labels for a load when the sterilization cycle is completed linking an instrument and a sterilization cycle to the patient:

- Sterilizer serial number
- Cycle (batch) number
- Sterilization date
- Load expiry date
ECPD Certification

To complete the ECPD survey please visit www.whknowhow.co.uk/ecpd-survey/

You will receive your certificate within 14 working days
Any queries, please call 0161 665 5881.

www.wh.com/en_uk/

Thank you for taking part in W&H’s ECPD Training