



## DISINFECTION OF IMPRESSIONS, WAX BITE BLOCKS AND APPLIANCES

### OVERVIEW

- The principal potential route of transmission of infection from a patient to a dental technician is by contaminated impressions and other prosthetic materials. \*
- Patient contact with impressions, wax bite rims and all intra oral appliances inevitably causes contamination with pathogenic microorganisms, bacteria, viruses and fungi through contact with saliva and/or blood.
- It has been shown that microorganisms can survive in set gypsum models for up to seven days, presenting a significant risk to laboratory staff. \*\*
- The responsibility for ensuring that impressions and appliances have been cleaned and disinfected prior to dispatch to the laboratory lies solely with the dentist. \*\*\*
- Impressions, wax rims, and all try-ins must be disinfected chair-side, immediately after removal from the patient's mouth.

## IMPRESSION DISINFECTION PROTOCOL

### TIP 1

*If the following suggested sequence is followed, your impressions:*

- *will not present a cross infection risk to laboratory personnel;*
- *will retain their optimum dimensional accuracy;*
- *will enable MediMatch to safely create laboratory work of the highest quality.*

#### 1<sup>st</sup> STEP

The Impression must be rinsed under running water (room temperature) immediately after removal from the patients mouth to remove saliva, blood and debris, until it is visibly clean **(if grossly contaminated, it should be cleaned in an ultrasonic bath containing an appropriate detergent, and then rinsed).**



Image courtesy of Cavex Holland BV

#### 2<sup>nd</sup> STEP

Immerse the impression, including the tray and its handle in a disinfection bath containing the appropriate disinfectant solution for the time specified, observing the manufacturer's instructions for use.

### TIP 2

*It is important to choose the correct disinfectant solution for specific impression materials (Disinfectants can affect the dimensional stability of impression materials - this is particularly important when constructing fixed prosthodontic appliances\*\*\*\*).*

*Avoid water-based glutaraldehyde disinfectant solutions with a pH of 8 or higher, as they can adversely affect the surface of gypsum. Products suitable for the disinfection of impressions or appliances are CE marked to demonstrate conformity to European Directives.*

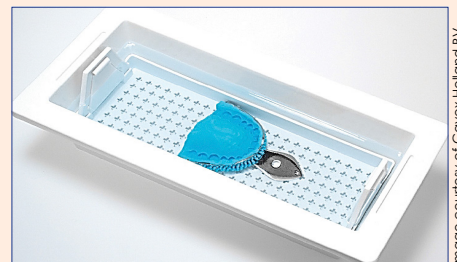


Image courtesy of Cavex Holland BV

### TIP 3

*Disinfectants should not be sprayed onto the surface of impressions - spraying reduces their effectiveness and creates an inhalation risk from the resulting aerosol. Disinfection by Immersion is recommended in all cases.*



WEBSHOP  
INSTALL



TRAIN  
SUPPORT



LAB  
DESIGN

### 3<sup>rd</sup> STEP

Remove the impression from the disinfectant bath, and rinse it under running room temperature tap water to remove any residual disinfectant solution.



### 4<sup>th</sup> STEP

Transfer the impression to a plastic bag and seal it to retain moisture during delivery (**all impression materials are subject to dimensional change if they are allowed to dehydrate**).

#### TIP 4

*Please ensure that all lab work returned to MediMatch is identified on the lab sheet as having been disinfected (detailing the date, name of the person who disinfected it, the disinfectant material used, and the type of impression material used).*

### 5<sup>th</sup> STEP

Forward the disinfected impression in its sealed bag with a fully completed laboratory instruction sheet to MediMatch (on the same day whenever possible).

#### TIP 5

*MediMatch can arrange same day collection of your impressions.*

*To arrange a collection, please call the dedicated logistics helpline on 020 3875 8530.*

## SUGGESTED WAX RIM/BITE DISINFECTION PROTOCOL

### 1<sup>st</sup> STEP (in surgery)

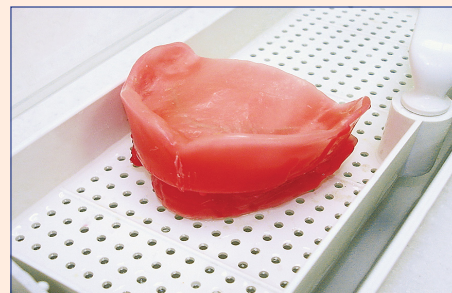
MediMatch recommends that wax rim blocks are disinfected by immersion in a disinfectant bath containing an appropriate cold disinfectant solution observing the manufacturer's recommended handling instructions and immersion times.

Wax rims and wax bites are occasionally disinfected by the spray/wipe/spray method.

#### TIP 1

*MediMatch does not recommend the spraying method, due to the significant risk to the operator of inhalation of pathogens from the spray aerosol.*

However, if the spraying method is utilised, it must always be undertaken within a plastic bag with the neck of the bag closely adapted around the neck of the spray nozzle. After the second spray, the bag should be sealed and the wax rims left for the time specified by the disinfectant manufacturer. They should be rinsed again after disinfection to remove any residual disinfectant, and then sealed in a plastic bag for transfer to the dental laboratory.



### References

- \* Watkinson, A.C. 'Disinfection of impressions in UK dental schools', British Dental Journal, 1988; 164: 22-23.
- \*\* Leung, R.L & Schonfeld, S.E. 'Gypsum casts as a potential source of microbial cross-contamination'. Journal of Prosthetic Dentistry, 1983; 49: 210-211.
- \*\*\* BDA Advice Sheet A12: "Infection Control in Dentistry"
- \*\*\*\* Jagger D.C., Vowles, R.W., McNally, L., & Davis O'Sullivan, D.J., 'The Effect of a Range of Disinfectants on the Dimensional Accuracy and Stability of Some Impression Materials'.

**Please note:** The above protocol describes a suggested impression and wax bite block disinfection technique, based on current UK good clinical practice guidelines. It is not intended to be prescriptive - it is mandatory that all dental practices observe their Infection Control Policies and Procedures at all times, in accordance with all relevant UK Regulatory and Statutory requirements.