

# A-dec Equipment Asepsis Guide

## Introduction

A-dec is committed to provide asepsis guidelines that support dental professionals in the practice of state-of-the-art dental equipment asepsis. Our asepsis guidelines are developed using guidance from the Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), the Environmental Protection Agency (EPA), and the Organization for Safety, Asepsis, and Prevention (OSAP) with the goal of helping practitioners protect their investment in dental equipment.

A-dec continually evaluates asepsis procedures and products so that we can deliver information that is consistent with the above stated goals.

You can find additional information on dental infection control from the Organization for Safety, Asepsis, and Prevention (OSAP).

## Surface Management

“What surface disinfectant should I use?” Ideally, there would be a simple answer to this question. However, with so many infection control requirements and increased concerns about damage to dental equipment, there are no simple answers. No materials available for the manufacturing of dental equipment are impervious to every chemical, but some materials are better than others.

A-dec does incorporate the most chemical-resistant materials available in its product lines, but there are also thousands of dental units in service that were produced long before the heightened attention to infection control. Even more planning and care must be given to prevent premature damage to older equipment.

Just as there are no materials used in the manufacturing of dental equipment that will withstand every chemical, no chemical should be

considered harmless to dental equipment. Even the surface disinfecting chemicals previously published in A-dec Instructions for Use as “least harmful” can damage equipment over time.

In addition to the many chemicals that are available for surface disinfecting, a wide range of methods are used by practitioners to deal with surface contamination. These methods can either decrease or prolong the life of dental equipment. For instance, some dental practices rely on frequent, copious applications of disinfecting chemicals that may not only be unnecessary, but also are expensive and damaging. Other dental practices incorporate single-use barriers and disposable items that significantly reduce the frequent need for chemical usage, prolonging the life of the equipment.

Besides surface disinfectants, there are many other factors contributing to dental equipment damage. Handpiece lubricants, residual sulfur in latex gloving, chemical sterilants, heat, humidity, cleaning chemicals, the applicators used to apply cleaning and disinfecting chemicals, ultraviolet light, dental treatment materials, and high mineral content water are just some factors related to dental equipment damage.

Surface Management is a term used at A-dec to describe the collective use of products and methods to deal with equipment asepsis issues. With proper surface management techniques, effective infection control can be ensured and practitioners can protect dental equipment from premature damage. The question should not simply be “What surface disinfectant should I use?” The question should be “How can I best manage the surfaces on my dental equipment?”



**BIOHAZARD** Biohazard from dental equipment can result in life threatening disease to patients and staff. Use appropriate precautions including PPE (Personal Protective Equipment), barriers, disinfection, and sterilization to minimize exposure hazard.

## Surface Management Protocol

Keeping previous issues in mind, the following is A-dec's recommended surface management protocol:

1. Heat sterilize all items that enter the oral cavity (or use single-use disposable replacements). A-dec and related products that are designed for use in the oral cavity include the following. (Many other items found in the dental operatory fall into this category as well).
  - High speed handpieces \*
  - Attachments \*
  - Tooth dryers
  - High volume evacuator (HVE) and saliva ejector (SE) tips
  - Syringe tips
  - Intraoral cameras \*\*
  - Ultrasonic instruments
  - Curing lights †

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\* While bur tools are not used in the oral cavity, they are used on handpieces and must also be pre-cleaned and heat sterilized.

\*\* The intraoral camera uses sheaths and should not be sterilized.

† Only the curing light rod should be removed and sterilized.

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2. Identify and manage touch surfaces and transfer surfaces, reducing their number in the dental operatory.

Touch surfaces are those areas that require contact and become potential cross-contamination points during dental procedures. The key word is require. Many surfaces in the dental operatory could be touched during dental procedures, but only a few require touching. For example, dental lights typically are repositioned (and thus, touched) during most procedures. If only the light handle is touched during this positioning and not the housing, arm, or other parts of the light, the number of touch surfaces has, in effect, been minimized.

Also, the light switch could be operated with the forearm, eliminating it as a touch surface. Surfaces contaminated by contact with instruments or other inanimate objects are identified as transfer surfaces. Handpiece

holders and instrument trays are examples of transfer surfaces. Well thought-out operatory setup and disciplined chairside procedures will contribute to reducing the number of transfer surfaces in the operatory.

3. Use barriers (covers) on all touch surfaces and transfer surfaces (unless the surface is on an item that enters the oral cavity, which must be heat sterilized or disposed). Replace barriers between patients. Use barriers made from waterproof material. Use care to prevent cross-contamination when removing a contaminated barrier cover.
4. Use surface disinfectants on touch and transfer surfaces between patients only, and once at the end of each clinic day when it is evident that the barriers have been compromised. Always follow the label instructions on surface disinfectant products, including any specified kill-time.
5. Use mild cleaners on all splash and splatter surfaces. Splash and splatter surfaces (also referred to as aerosol surfaces) include all operatory surfaces that are not touch surfaces, transfer surfaces, or parts of items that enter the oral cavity. Use surface disinfectant on a splash and splatter surface only when it has been visibly contaminated. At least once each day, clean all splash and splatter surfaces with a mild cleaning solution. Never use abrasive cleansers, brushes, or scrubbing pads. Damp surfaces should always be dried with a lint-free cloth.

Limit the touching of splash and splatter surfaces to those who wear cleaning gloves while performing cleaning procedures.



**NOTE** Do not use "latex gloves" for cleaning procedures. Cleaning gloves should be made from nitrile rubber. Puncture and chemically resistant utility gloves should be used for all cleaning and disinfecting procedures.

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6. Use chair headrest barriers. The adjustment knob or lever on the back of a chair headrest is a touch surface that may need to be adjusted mid-procedure, and should therefore be covered with a barrier. The headrest barrier also protects the chair vinyl from the many hair treatment products used by your patients that could damage the headrest upholstery.

7. Minimize the use of surface disinfecting chemicals on upholstery vinyl. Use surface disinfectants on upholstery vinyl between patient visits only when barriers have been compromised.

Use cleaning and barriers as your primary asepsis approach on chair upholstery. If cross-contamination on chair upholstery is a concern, we recommend the use of barrier covers for the chair instead of relying on chemicals. Barriers significantly extend the life of your chair upholstery. If used for infection control, barriers must be replaced between patients. Avoid use of commercially available upholstery cleaners that are not intended for dental chairs (such as products for automotive, furniture, and so on).

## Cleaning

In following the recommended surface management protocol, focus more on cleaning environmental surfaces that are not points of cross-contamination. Use a solution of mild, dishwashing liquid and water, or commercially available cleaners containing no alcohol, bleach, or ammonia.

Because the hardness of water varies from locale to locale, you should experiment to determine the amount of dish washing liquid to add to the water. Mix just enough detergent to allow for good cleaning without leaving a soapy film on the surface. Never use abrasive cleansers, scrubbing pads, or other abrasive applicators because they can permanently scratch or otherwise damage equipment surfaces. Be careful using recycled paper products, such as paper towels, that may be abrasive.

## Water System Cleaning and Maintenance

For proper dental unit waterline cleaning and maintenance procedures, refer to the *A-dec Self-Contained Water System Instructions for Use* (p/n 86.0609.00) available in the document library at [www.a-dec.com](http://www.a-dec.com).



 **A-dec Headquarters**

2601 Crestview Drive  
Newberg, Oregon 97132  
United States  
Tel: 1.800.547.1883 within USA/CAN  
Tel: +1.503.538.7478 outside USA/CAN  
[www.a-dec.com](http://www.a-dec.com)

**A-dec Australia**

Unit 8  
5-9 Ricketty Street  
Mascot, NSW 2020  
Australia  
Tel: 1.800.225.010 within AUS  
Tel: +61.(0).2.8332.4000 outside AUS

**A-dec China**

A-dec (Hangzhou) Dental Equipment Co., Ltd.  
528 Shunfeng Road  
Qianjiang Economic Development Zone  
Hangzhou 311100, Zhejiang, China  
Tel: 400.600.5434 within China  
Tel: +86.571.89026088 outside China

**A-dec United Kingdom**

Austin House  
11 Liberty Way  
Nuneaton, Warwickshire CV11 6RZ  
England  
Tel: 0800.ADEC.UK (2332.85) within UK  
Tel: +44.(0).24.7635.0901 outside UK



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