

# TEAMWORK

## Dental Asepsis

### Hand Care: A Critical Step in Infection Prevention

#### Author:



Mary Govoni, CDA, RDA, RDH, MBA is a Certified Dental Assistant, a Registered Dental Assistant (MI) and a Registered Dental Hygienist, with experience in general and specialty practices both clinically and as an administrator. Mary is a former dental assisting educator and was a partner in a successful dental staffing service. For the past 20 years, Mary has focused on speaking and consulting with dental teams on OSHA compliance, ergonomics, chairside efficiency and team communication and development. Recently, Mary has added HIPAA compliance and employment law compliance to her areas of expertise. Mary has published numerous articles in professional journals, such as RDH Magazine, The Dental Assistant, Dental Products Reports, and is featured monthly in Dental Economics. She is a life member and Past President of the American Dental Assistants Association, and serves on the ADAA Editorial Board as well as the Corporate Council for Dimensions of Dental Hygiene. Mary is also a consultant to the American Dental Association on Dental Practice (ADA) and a featured speaker on the Continuing Education and Lifelong Learning Seminar Series.

The hands of the dental health care professional are their livelihood. Therefore, hand care should be a priority in every dental health care setting. Hand care encompasses both hand hygiene, commonly known as hand-washing and hand antiseptics; as well as maintaining the integrity of the skin of the hands. Hand-washing and hand antiseptics help prevent the spread of microorganisms through touch, while protecting the skin from drying, chapping and cracking helps prevent the introduction of microorganisms through openings in the skin of the hands.

Hand hygiene products, including soaps or alcohol sanitizers, come in many varieties and formulations. Most practice settings can benefit from the use of several types of hand hygiene products. Plain or antimicrobial soap is an ideal product for hand-washing when hands are visibly soiled or contaminated, at the beginning and end of the day, before eating and after using the rest room. Soaps have shown to be more effective at removing debris from hands than alcohol hand sanitizers. The previously mentioned scenarios are fairly obvious in terms of the need to perform a thorough soap and water washing to remove debris, except for the need for removing debris from hands after removing gloves. We tend to think that exam gloves are absolute barriers to exposure to blood and/or saliva, but they are not. Gloves can sometimes develop micro leaks, thus exposing the skin underneath to potential pathogens. It is in the best interest of the dental health care professional to sanitize with an alcohol based hand rub or when the hands are visibly soiled or contaminated, to wash their hands thoroughly after de-gloving.

The type of soap used is dependent on the type of procedure. For all procedures except the surgical ones in dentistry, plain soap, in liquid or foam is appropriate. Many professionals choose to use an antimicrobial soap which is also acceptable, although not mandatory. Antimicrobial hand-scrubs, particularly those with continual activity are most appropriate for use prior to and after surgical procedures. Keep in mind, that if you utilize a surgical hand-scrub, such as one with chlorhexadine gluconate (chg) for all procedures, it may be very drying to the skin. Except in the case of surgical procedures a plain soap or other antimicrobial soaps with triclosan or PCMX are less drying to the skin (Fig. 1).

Alcohol hand sanitizers are also appropriate for use in dentistry, although it is important to note that these products are not effective in removing debris from skin. These products may be best utilized prior to donning gloves, since they dry quickly and can help prevent skin irritation from wet hands in gloves. Dental professionals are less likely to have accumulated any debris on their skin, as they might during a procedure either through a break in the glove or perhaps from powder residue from the glove. These products are also very useful in some areas of a facility, such as a dark room, where hand-washing facilities may not be readily available. The CDC Hand Hygiene Guidelines present well-validated data on the effectiveness of waterless hand hygiene products. Although the U.S. Food and Drug Administration (FDA) recommends that these products contain at least 60% alcohol, studies indicate that products with a higher alcohol content are even more effective in



Fig. 1: Hu-Friedy Hand Essentials™ Lotion Soap



Fig. 2: Hu-Friedy Hand Essentials™ Skin Repair Cream

controlling both resident and transient microorganisms. Over the counter alcohol hand sanitizers typically contain 60-65% alcohol; while a few medical grade products, contain greater than 80%.

The potential side effect of using alcohol hand sanitizers frequently is drying of the skin. This is particularly true of those with higher alcohol concentrations. To counter act this, some manufacturers have added emollients and moisturizers into the gels and liquids that prevent over-drying of the skin.

Whether you use soap and water, alcohol hand-sanitizer or a combination of both, your skin can become dry and irritated. Dental professionals living in cold weather climates are particularly sensitive to dry skin. It might be helpful to switch to a milder soap in the coldest months. But no matter what time of year, it is always appropriate to moisturize hands frequently. Intact skin is an excellent barrier to potential exposure to pathogens, so maintaining the integrity of the skin on the hands should be of utmost importance to dental professionals.

The selection of hand moisturizers should include several criteria. First, the product must be compatible with the glove material. In the case of lotions that contain petroleum products, such as petroleum jelly (Vaseline) or waxes, latex gloves can begin to break down when they come in contact with these products. Always check product labels for ingredients that may incompatible with gloves. Typically professional or medical grade products do not contain ingredients that are not compatible with gloves. But not all

professional types of hand creams or moisturizers are necessarily more effective than some over the counter products may be. One exception is the Hand Essentials™ Skin Repair Cream from Hu-Friedy (Fig. 2). This product was developed for use in medicine, such as in hospitals and long term care facilities, where skin break down is very common among both patients and health care providers. This cream is compatible with gloves, and contains a derivative of olive oil, which is highly regarded as a “natural” skin moisturizer. It’s non-greasy, non-irritating formula is easily absorbed, but not completely removed when hands are washed. It is an ideal product for everyday use in dentistry.

If you are searching for effective and moisturizing hand care products, the Hu-Friedy Hand Essentials are well worth investigating. Remember, your hands are one of your most valuable professional assets – take good care of them. TW

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**Murray Arlin, D.D.S., dip. Perio., F.R.C.D.(C)** received his D.D.S. from McGill University in 1977 and his Post-graduate Program in Periodontics at the University of Toronto in 1980. Dr. Arlin received his training in Implant Dentistry in 1985. Since then, he has been actively involved in continuing education. He has placed over 10,000 implants to date. He is the co-founder of the Toronto Implant Study Club and carries on a full-time private practice limited to Periodontics and Implant Dentistry in Toronto.

**Bruno Lemay, DMD** graduated from the University Laval in 1990 and UCLA in 2000. Since then, he has been in private practice in Palm Springs, California. Since 2001, he has devoted most of his time in the practice and improvement of small diameter implants. He is the founder of the Canadian Mini-Implant Institute and has been training dentists in Canada on the small diameter technique since 2009.



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