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Dental Unit Waterlines (DUWL)

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Overview

Biofilm is a thin, slimy film of bacteria that sticks to moist surfaces, such as those inside dental unit waterlines. Biofilm occurs in dental unit waterlines because of the long, small-diameter tubing and low flow rates used in dentistry, the frequent periods of stagnation, and the potential for retraction of oral fluids. As a result, high numbers of common water bacteria can be found in untreated dental unit water systems. A few disease-causing microorganisms found in untreated dental unit water include *Legionella*, *Pseudomonas aeruginosa*, and nontuberculous *Mycobacterium*.

Dental health care personnel and patients could be placed at risk of adverse health effects if water is not appropriately treated.

[Source: CDC](#)

Resources

Centers for Disease Control and Prevention (CDC)

- [Guidelines for Infection Control in Dental Health-Care Settings — 2003](#)
- Appendix A - [Regulatory Framework for Disinfectants and Sterilants; includes Figure: Decreasing Order of Resistance of Micro-organisms to Germicidal Chemicals](#)
- Appendix B - [Immunizations Strongly Recommended for Health-Care Personnel \(HCP\)](#)
- Appendix C - [Methods for Sterilizing and Disinfecting Patient-Care Items and Environmental Surfaces](#)
- [Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care](#)
- [Infection Prevention Checklist for Dental Settings Basic Expectations for Safe Care](#)
- [HAN - October 31, 2022 - Outbreaks of Nontuberculous *Mycobacteria* Infections](#)

[Highlight Importance of Maintaining and Monitoring Dental Waterlines](#)

- [Mycobacterium abscessus](#) in Healthcare Settings
- [Dental Unit Water Quality](#)
- [Infection Prevention & Control in Dental Settings](#)

Organization for Safety, Asepsis and Prevention (OSAP)

- [Dental Unit Water Quality: Organization for Safety, Asepsis and Prevention White Paper and Recommendations– 2018](#)
- [OSAP Recommendations to Clinicians](#)
- [Message to My Patients](#)
- [Questions to Help Guide Selection of Dental Waterline Devices and Chemical Treatment Options](#)

- [Checklist for Dental Unit Water Quality Improvement](#)
- [Troubleshooting Dental Water Quality Problems](#)
- [Glossary of Terminology](#)

Food and Drug Administration (FDA)

- [Dental Unit Waterlines](#)

American Dental Association (ADA)

- [Dental Unit Waterlines](#)

Fact Sheets & Information

Organization for Safety, Asepsis and Prevention

- [Dental Unit Waterline Fact Sheet](#)

Related Articles

- [Woman Dies After Contracting Legionnaires' Disease From Dentist's Office](#)
- [Notes from the Field: *Mycobacterium abscessus* Infections Among Patients of a Pediatric Dentistry Practice — Georgia, 2015](#)
- [Invasive *Mycobacterium abscessus* Outbreak at a Pediatric Dental Clinic](#)