

# Dental Unit Waterline Maintenance & Care

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# Identify your Water Source

## Municipal water supply:

1. Install a point-of-use filter between the dental instrument and the waterline tubing.
2. Retrofit the dental unit
  - > self-contained water system
  - > easy delivery of chemical treatments
3. Install a system – delivery of cleaning agents at a junction box.




# Identify your Water Source

 **Self-Contained water system:** → a reservoir bottle that attaches to the dental unit waterline.

1. Water – tap, distilled, sterile, etc... (Distilled or sterile water protects your handpieces)
2. Easy to add cleaning agents to the bottle
3. Contact your dental unit manufacturer – compatible products
4. Waterline maintenance schedule – assigned person
5. Establish a dental unit water monitoring protocol



# Identify your Water Source

 **Delivery of Sterile Surgical Irrigation:** → use sterile saline or sterile water as coolant/irrigation in all oral surgical procedures via bulb syringe or sterile single-use disposable products.

 **Surgical procedures include:**

- Incision/excision or reflection of tissue.
- Biopsy
- Periodontal, apical, and implant surgery
- Surgical extractions with flap elevation



# Dental Waterline Products

## Filters:

Product	DentaPure®	Sterisil Cartridge™
Protocol	Install near junction box of dental units connected to municipal water systems (lasts for 240 working days, 240 L of water, or until Iodine falls below 0.5 ppm). Note: Self-contained water reservoir not required.	Point -of-use water purification device to eliminate tap water total dissolved solids (lasts approx 6 months to 1 year, depending on the volume and quality of the municipal water). Note: Self-contained water reservoir not required.
Source water	No	Yes: tap water
Monitoring	Not required when used according to labeling.	After start-up test at 1 week, then quarterly for 1 yr, then as needed.
Manufacturer	MRLB International, Inc. www.dentapure.com (800) 972-3543	Sterisil, Inc. www.sterisil.com (877) 755-7873
Price	\$674.95 Retail	\$99.00 Retail

# Filters



**DentaPure® DP365 Cartridge**



**Sterisil Cartridge™**

# Chemical Treatments

- Remove, inactivate, or prevent formation of biofilm
- Continuously infused or intermittently added to dental unit

Product	Protocol	Manufacturer	Price
BluTab™	Add one tablet each time the water bottle is filled.	ProEdge Dental Products www.proledgedental.com (888) 843-3343	\$27.95** (std tablet) Retail
ICX™	Add one tablet each time the water bottle is filled.	A-dec www.a-dec.com (800) 547-1883	\$1270.00 (0.7L bottle) Retail
Sterilex® Ultra Powder	Weekly overnight treatment with diluted product.	Sterilex Corporation www.sterilex.com (800) 511-1659	\$56.60 Retail
VistaTab™	Every week or as needed, add one tablet to 750 mL potable water.	Vista Research Group, LLC Hu-Friedy Mfg. Co., Inc. www.hu-friedy.com (800) 483-7433	\$129.00 Retail

# Chemical Treatments



Blutab™



ICX™



Sterilex® Ultra Powder



VistaTab™

# Water Quality Monitoring

- 🌐 The only way to know that your dental unit waterline cleaning regimen is effective → **Test the unit's water.**
- 🌐 **Testing:** Is done using three samples of water taken from different sources from the same dental unit.
  - handpieces should be removed before samples are obtained.
  - wear gloves and follow directions carefully for testing water.

# Water Quality Monitoring

## Dental Unit Water Quality Testing Products ( In-office-use )

Product Name	Company	Contact
HPC Total Count Sampler ( # MHPC10025)	Millipore	(800) 645 - 5476
Disinfection Control Paddle Tester ( # 26195-10)	Hach Company	(800) 227 - 4224

## Dental Unit Water Quality Testing Services

Laboratory	E-mail	Contact
Sonora Quest Laboratory	<a href="http://www.sonoraquest.com">http://www.sonoraquest.com</a>	(623) 587 - 6488
Micro Test Laboratory	<a href="mailto:microreslabsinc@yahoo.com">microreslabsinc@yahoo.com</a>	(800) 713 - 3334

Your company here

2019 DENTAL WATER

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Sonora Quest Laboratories

A Subsidiary of Laboratory Sciences of Arizona  
800.766.6721 www.SonoraQuest.com

ZISLIS, THEODORE N

PLEASE PRINT CLEARLY ALL INFORMATION MUST BE PROVIDED OR ACCOUNT WILL BE BILLED. USE BLACK OR BLUE INK ONLY

PATIENT'S LAST NAME FIRST MI

DATE COLLECTED  STAT  
SEX  M  F COLL TIME AM PM  
DATE OF BIRTH  FAX (verify #)  
Phone #:  
Fax #:

CLINICAL INFO. CHART/OTHER I.D. FASTING HRS. PP URINE VOL. 24 HRS. TIME OF COLL. ML.

PAT. SS# (Will not print on report) ORDERING PHYSICIAN & NPI REQUIRED (Unless listed and circled above): DIAGNOSIS CODE(S):

BILL:  ACCOUNT COMPLETE YELLOW AREAS  PATIENT COMPLETE YELLOW & GREY AREAS  PAID AT PSC (RECEIPT ATTACHED)  INSURANCE (INFO MUST MATCH INSURANCE CARD) COMPLETE YELLOW, GREY & GREEN AREAS FOR MEDICARE, USE THE MEDICAL NECESSITY REQUISITION

RESPONSIBLE PARTY/INSURED: INSURANCE COMPANY/UNDERWRITER/CARRIER:  
ADDRESS: CLAIMS ADDRESS:  
CITY / STATE / ZIP CODE: PT. RELATIONSHIP: CITY / STATE / ZIP CODE: EMPLOYER:  
HOME PHONE NO.: WORK PHONE NO.: INSURANCE PLAN NAME/ADMINISTRATOR: GROUP/PLAN #:  
REPORT COPY TO INCLUDE NAME, ACCT. # AND ADDRESS: INSURANCE I.D. #:

PLEASE CIRCLE DESIRED TEST(S) - ANY PROFILE COMPONENT MAY BE ORDERED SEPARATELY. REFLEX TESTING PERFORMED AT ADDITIONAL CHARGE.

PANELS & PROFILES (Components on back)		RT 11293 O.B., Immunochem-Scrn (FIT/Insure®)		8060 Vitamin B-12	
900320 Basic Metabolic Panel	XS 9201 Estradiol	SS 1027 Potassium	SS 902068 Vitamin D, 25 OH, LC/MS/MS	SS 904059 Vitamin D, 25 OH, Total	
900323 Comprehensive Metabolic Panel	XS 9215 Folicle Stimulating Hormone	SS 8025 Pregnancy, Qualitative, Serum	SS MICROBIOLOGY (*ID & Sens if Indicated at add. chrg)	SS 4704 Culture, Group A Strep* Site:	
31033 ChemPanel Basic (CPB)	XS 8015 Folate	SS 8030 Pregnancy, Quantitative, Serum	SS 3500 Prothrombin Time (INR)	BT 4615 Culture, Group B Strep* Site:	
102455 Electrolyte Panel	XS 2019 GGT	SS 8501 PSA, Total	SS 3505 PTT (BT stable 24 hours)	FP Prenatal Screen - not for throat specimens	
900313 Hepatic Function Panel (Liver)	SS 2021 Glucose, Fasting	SS 2337 Rheumatoid Factor	SS 2376 RPR w/Reflex to Titer	SS 704705 Culture, Urine*	
104750 Hepatitis Panel, Acute w/Rfx Conf.	SS 2329 Glucose, Random	SS 2377 RPR w/Reflex to Titer	SS 1054 RPR w/Reflex to Titer & FTA Abs	SS 700399 Chlamydia, Amplified Probe,	
2040 Iron & TIBC	SS 902757 GlycoMark	SS 2337 RPR w/Reflex to Titer	SS 3105 Sedimentation Rate (Westergren)	LT Endocerv, M Urethral, Urine Only	
1877 Lipid Panel	SS 2030 HDL	SS 1054 RPR w/Reflex to Titer & FTA Abs	SS 905399 Syphilis Treponemal Screen	SS 900400 GC, Amplified Probe, Endocervical, M Urethral, Urine Only	
902278 Lipid Panel w/Reflex LDL Direct	SS 3025 Hematocrit	SS 3105 Sedimentation Rate (Westergren)	SS 905380 Syphilis Scrn w/Rfx RPR w/Rfx Titer	SS 900398 GC/Chlamydia, Amplified Probe,	
1424 Liver Profile	SS 9230 Hemoglobin A1c w/eAG	LT 3105 Sedimentation Rate (Westergren)	SS 905363 Syphilis Scrn w/Rfx RPR w/Rfx Titer or TPPA	SS Endocerv, M Urethral, Urine Only	
1914 Obstetric Panel w/Reflex	1SS/2LT 904354 Hemoglobin A1c w/eAG w/Rfx to GlycoMark	SS 905363 Syphilis Scrn w/Rfx RPR w/Rfx Titer or TPPA	SS 8040 T3 Uptake	SS Routine/Aerobic Culture* (Enter Site & Circle Site:	
2046 ALT (SGPT)	SS 9235 Hepatitis B Surface Ab (HBsAb)	SS 8040 T3 Uptake	SS 8045 T4 (Thyroxine)	SS VIROLOGY	
2012 Amylase	SS 8020 Hepatitis B Surface Ag (HBsAg) w/Reflex to Confirmation	SS 8045 T4 (Thyroxine)	SS 8099 T4, Free	SS Test Code from back of requisition/Source are require	
2920 ANA Screen w/Reflex to Titer	SS 8587 Hepatitis C Ab	SS 8099 T4, Free	SS 8055 Thyroid Stimulating Hormone (TSH)	SS Test Code:	
19946 ANA Cascading Reflex	SS 3682 HIV 1/O/2 Ab Screen w/W.B. 1 Rfx	DSS 8055 Thyroid Stimulating Hormone (TSH)	SS 1032 Triglycerides	SS Source Required:	
1010 AST (SGOT)	SS 2038 Iron	SS 1032 Triglycerides	SS 38055 TSH w/Reflex to Free T4	SS	
1022 BUN	SS 2032 Lactic Dehydrogenase (LDH)	SS 38055 TSH w/Reflex to Free T4	SS 1013 Uric Acid	SS	
3005 Hemogram (CBC w/o Diff w/Plt)	LT 16033 LDL Cholesterol Direct	SS 1013 Uric Acid	SS 3305 Urogram (Dipstick)	UT	
3000 Complete Blood Count w/Diff/Plt. (CBD)	SS 2120 Lithium	RT 3305 Urogram (Dipstick)	SS 3300 Urogram w/Reflex to Microscopic	UT	
8599 CEA	SS 9929 Microalbumin, Random Urine	UC 3300 Urogram w/Reflex to Microscopic	SS 23305 Urogram w/Reflex to Culture*	UT/GU	
1014 Creatinine	SS 4034 Occult Blood (O.B.) x 3, Guaiac - Diag	SS 23305 Urogram w/Reflex to Culture*	SS 43305 Urogram w/Rfx to Microscopic &/or Culture*	UT/GU	
1017 Cholesterol	SS 13223 Occult Blood (O.B.) x 3, Guaiac - Screen	SS 43305 Urogram w/Rfx to Microscopic &/or Culture*			
90045 CRP, High Sensitivity (Cardiac Marker)	SS 11290 O.B., Immunochem-Diag (FIT/Insure®)				
2320 CRP, Routine (Non-Cardiac)					

4072 CULTURE, ENVIRONMENTAL  
\* SOURCE: \_\_\_\_\_

Q1563 (2/12)

DRAW FEE

GENERAL REQUISITION

GEN1

# Waterline Maintenance

 **Depends on Dental Unit's manufacturer's instructions**

 **Midmark:** Dental Unit Waterline Care – **Daily**

1. Flush waterlines at the beginning of each clinic day. (CDC)
2. Add one tablet of Blu tab to water reservoir bottle (2 L) before adding water to help remove biofilms.
3. Discharge water/airlines (air/water syringe, handpieces, Ultrasonic, Cavitron, and Symmetry scalers) for 20-30 seconds after each patient. (CDC)
4. Flush water/air lines after a bloody procedure with bleach solution; ie. SRP, extractions, surgical procedures, etc . . .

# Waterline Maintenance

## Midmark: Dental Unit Waterline Care – Weekly

1. Flush all air lines twice weekly is recommended(BioPure).
2. Clean and change out suction traps once weekly.
3. When new filter is placed: Test water lines (test from three different sources from unit) weekly until total Bacteria colony forming units are  $\leq 500$  CFU/mL, then test waterlines weekly.
4. Send water to a commercial Laboratory (ie. Sonora Quest) for testing water quality or by using commercial self-contained test kits.

# Waterline Maintenance - Weekly



## How to “Maintain” Evacuation Suction

Bio-Pure’s Microbial Formula digests organic matter and solids which **GUARANTEES TO IMPROVE SUCTION PERFORMANCE** and “**ELIMINATE**” Daily Trap Hand Cleaning. 100% All Natural & Biodegradable. Non-Foaming & **SAFE** for humans, animals, plants and pipes.

**Twice Weekly Maintenance Protocol** - At closing (per 1 operator) add 1 scoop (5g) Bio-Pure to 16 oz. (473 mL) of warm water & mix. Aspirate 8 oz. (236 mL) solution into each valve, one valve at a time, 16 oz. (473 mL) per operator 2x per week. **RINSE DISPENSER AFTER USE!**

**(or) - Daily Maintenance Protocol** - At closing (per 2 operator) add 1 scoop Bio-Pure (5g) to 32 oz. (946 mL) of warm water & mix. Aspirate 8 oz. (236 mL) solution into each valve, one valve at a time, 16 oz. (473 mL) per operator daily. Bio-Pure Maintenance Cleaner, 14 oz. #2801002 or 48 oz. 2801003 - Any extra Restore product may be used for the Maintenance Protocol. **Important Precautions:** Never place a wet scoop into Bio-Pure container. Re-seal lid to ensure freshness. Store out of direct sunlight and not in refrigerator. Rinse dispenser and pour residual mixture down sink drain to put microbes to work there. After system restore, pump settings may need to be re-set to original OEM specifications. Also, monthly mix a 1 scoop of Bio-Pure with 24 oz. (709 mL) *WARM WATER* and pour down cuspidor or other drains to keep clean. **Re-Order: Maintenance Cleaner, 6 oz. #2801001, 14 oz. #2801002 or 48 oz. 2801003**

# Waterline Maintenance

## 🌐 Midmark: Dental Unit Waterline Care – Monthly

1. When a new filter is placed: That month → Test water lines (test from three different sources from unit) weekly until total Bacteria colony forming units are  $\leq 500$  CFU/mL, then test waterlines weekly.



# Waterline Maintenance

🌐 Midmark: Dental Unit Waterline Care – Yearly

1. Change out inline filter (ie. DentaPure) once yearly.



# Resources

1. Kohn WG, Collins AS, Cleveland JL, Harte JA, Eklund KJ, Malvitz DM. Guidelines for Infection Control in Dental Health-Care Settings –2003.  
[www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm)
2. Bednarsh HS, Eklund KJ, Mills S. Dental Unit Waterlines: Check Your Dental Unit Water IQ. Access Vol. 10, No. 9, 1997.
3. Carl Kay C. Dental Unit Water – What Are You Doing About Yours? J AZ Dent Assoc. Incriptions Oct. 2010; pgs. 46-63.