



## T-FloLoc™ MINERALIZATION Protocol

7350 N. Ridgeway  
Skokie, IL 60076 USA  
tel. 847-674-7143

[info@norfolkvetproducts.com](mailto:info@norfolkvetproducts.com)  
[www.norfolkvetproducts.com](http://www.norfolkvetproducts.com)

*Note: This protocol is based on initial clinical experience presented at the Veterinary Interventional Radiology and Endoscopy (VIRIES) conference in 2017. Successful demineralization of a SUB device was accomplished in 8/10 devices and successful eradication of recurrent urinary tract infections was successful in 3/4 patients. The protocols recommended is what has been deemed to be safe and effective in this small groups of feline patients in the authors experience.*

### T-FloLoc™ (Tetra-EDTA) Protocol for MINERALIZATION

*Provided by Drs. Allyson Berent and Chick Weisse*

#### Precautions:

1. Clip the port site and scrub using aseptic technique as usual when accessing the SUB™.
2. Follow instructions on SUB Flushing in *THE SUB™ FLUSH KIT* or *T-FloLoc™ IFUs*.
3. This should only be used if there is some flush occurring into all catheters. If there is no flush, then the T-FloLoc™ will likely not work to demineralize.
4. If the pelvis is dilated and the SUB™ is occluded (partially=flushing some), doing 3 serial days (BID) of infusions is recommended. If the SUB is occluded (partially) but the ureter is patent so there is no pelvis dilation, then doing 2x in first week (once daily), then weekly, then every other week, then monthly, then every 3 months is recommended.

#### Week 1

**Day 1:** Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to empty bladder and renal pelvis. This may not be possible if occluded. Sometimes you cannot drain as much as you can flush. If this is the case, be careful not to overfill pelvis since you cannot drain it. Initially drain the system and submit urine for UA, cytology and culture at start of the demineralization protocol (Day 1). The, flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Do not ever add more fluid in than you were able to remove. Once the saline is removed, infuse 1.0-1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time. Infuse slowly in pulses to see the bubbles, but avoid overfilling the renal pelvis. Allow the pelvis to passively drain between pulses.

**Day 2, 3, 4, and/or 5:** Same as Day 1 but a repeat culture is not necessary. By the end of this week, the SUB should be flushing well.

#### Week 2

**Day 8:** Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

#### Week 4

**Day 22-24:** Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to ideally empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

## **Week 8**

**Day 50-52:** Standard urinary tract ultrasound and SUB flush and urine culture. Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to ideally empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

## **Week 14**

**Day 92-94:** Renal panel, UA, UCS, Urine cytology. Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to ideally empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

## **WEEK 26:**

**Day 176-178:** Renal panel, UA, UCS, Urine cytology. Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to ideally empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

## **EVERY 3-months thereafter:**

Renal panel (or CBC/CHEM every 6 months), UA, UCS, Urine cytology. Standard urinary tract ultrasound and SUB flush. Drain the system as much as possible to empty bladder and renal pelvis. Flush with 0.5 mL sterile saline to see bubbles in bladder and kidney. Drain the saline. Then infuse 1.5 mL of 2% EDTA to see bubbles in kidney and bladder and leave it to dwell. Do this one time.

## ***For Technical Information, please contact:***

Allyson Berent, DVM, DACVIM at [allyson.berent@gmail.com](mailto:allyson.berent@gmail.com)

and /or

Chick Weisse, VMD, DACVS at [chick.weisse@gmail.com](mailto:chick.weisse@gmail.com)



# T-FloLoc™ MINERALIZATION Protocol CHART

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## Individual T-FloLoc™ Mineralization Protocol Chart

Name:

MR#:

Date:				
	Day 1	Day 3-5	Day 8	Day 22-24
Culture				
UA Sediment				
UA pH				
UA Bacteria				
UA WBC				
Cytology				
Volume Removed				
Volume Infused				
% EDTA Infused (typically 2%)				
Times Per Day				
Dwell Time				
Sedation (if needed)				
Date:				
	Day 50-52	Day 92-94	Day 176-178	
Culture				
UA Sediment				
UA pH				
UA Bacteria				
UA WBC				
Cytology				
Volume Removed				
Volume Infused				
% EDTA Infused				
Times Per Day				
Dwell Time				
Sedation (if needed)				