Effective Implant Scaling (Continued from page 1)

Clinical Observations

Implant hygiene observations from CR Clinicians and a recent survey *(n=878):*

- **Patient home care** was the most critical factor for success.
- **Clinicians indicated Excellent** *(48%)* **or Good** *(49%)* **success** at maintaining bone level and healthy soft tissues.
- **Calculus formed around implants less** than around natural teeth in most *(77%)* situations.
- **Many clinicians** *(28%)* **indicated they do not routinely scale around implants** if tissue appears healthy with no sign of calculus.
- **Most frequent treatments performed at recare appointments:**
  1. Scaling with implant-specific scaler *(77%)*
  2. Polish with rubber cup and paste *(43%)*
  3. Lavage *(23%)*
  4. Scaling with conventional hand scaler *(17%)*
  5. Scaling with ultrasonic scaler *(11%)*
  6. Sub-gingival air-slurry polishing or other treatments *(<1%)*
- **Types of implant scalers used most frequently:** Polymer/plastic *(51%)*; Titanium *(19%)*; Conventional stainless steel *(14%)*; With special coating *(6%)*

The most common implant hygiene involved plastic scalers to remove plaque, disrupt bacteria, and stimulate tissues without marring the implant, abutment, or prosthesis. When calculus was present, however, titanium scalers were more effective.

Scaler Features and Performance

The following table shows 11 brands of implant hand scalers that performed well in recent CR in-house and clinical field testing. Numerous additional brands are available. Many brands are available in convenient kits that may include popular shapes, a perio probe, sharpening stone, and sterilization cassette. Conventional stainless steel scalers were used as controls for comparison.

Brand *Company*	Approximate Cost Each	Example Tip	Average Width	Can Be Sharpened	Firmness and Tactile Sensitivity	Potential to Gouge Implant	Ease of Calculus Removal	Overall Rating *(out of 10)*
Titanium Scalers								
Athena Titanium Implant Scalers/ Curettes, *A. Titan*	$50		0.8mm	Yes	Excellent	Minimal–Moderate	Excellent	CR Choice 8.75
Titanium Implant Instruments with ErgoMix handle, *LM Dental*	$20 tips *(plus handle)*		0.7mm	Yes	Excellent	Minimal–Moderate	Excellent	CR Choice 8.63
Titanium Implant Maintenance Instruments, *PDT*	$52		0.8mm	Yes	Excellent	Minimal–Moderate	Excellent	CR Choice 8.56
Implant Instruments *American Eagle Instruments*	$60		0.8mm	Yes	Excellent	Minimal–Moderate	Excellent	CR Choice 8.44
Titanium Scalers with Bionik handle *Karl Schumacher*	$58		0.9mm	Yes	Excellent	Minimal–Moderate	Excellent	CR Choice 8.44
ImplantPro Titanium Scalers *Brasseler*	$58		0.7mm	Not recommended	Excellent	Moderate*	Excellent	CR Choice 8.25
ImplaMate *Nordent*	$61		0.8mm	Not recommended	Excellent	Minimal–Moderate	Excellent–Good†	CR Choice 8.13
Titanium Implant Curettes *Salvin*	$62		0.8mm	Yes	Excellent	Moderate*	Excellent	CR Choice 8.06
Polymer Scalers								
Implacare II Scalers *Hu-Friedy*	$6 tips *(plus handle)*		1.0mm	Intended for single use	Good–Fair	None–Minimal	Good–Fair	7.94
Implant-Prophy+ *Tess Oral Health*	$27		1.2mm	Yes, stone provided	Good	Minimal	Good	7.50
Premier Implant Scalers *Premier*	$29		1.1mm	No	Good	Minimal	Good–Fair	7.06

** Very sharp and effective, approaching stainless steel scalers* *† Slightly rounded edge design was less aggressive around implants.*

Summary of Findings: All scalers were clinically useful within their intended functions. Ratings showed the similar performance of scalers within each type. Overall, titanium scalers provided more thorough cleaning and debridement, but had greater potential to gouge implant.

- **Titanium Scalers**
  (various alloys, treated, coated, etc.)
  - – Excellent sharp edges and firmness for tactile sensitivity and calculus removal.
  - – Rounded tips minimize soft tissue damage and gouging.
  - – Can scrape implants if used with firm pressure.
  - – Can leave dark marks on ceramics.
- **Polymer Scalers**
  (plastic, resin, graphite, etc.)
  - – Non-marring to implant bodies, abutments, or prostheses.
  - – Useful for routine recare of healthy tissues. Can rub over calculus rather than removing it.
  - – Wider and more bulky than metal scalers.
  - – Under firm pressure, edges wear quickly leaving debris, and can feel flimsy.
- **Conventional Stainless Steel Scalers**
  (control)
  - – Hard and sharp—excellent tactile sensitivity and calculus removal, but can easily gouge titanium.
  - – Contact of dissimilar metals can produce an electrochemical effect—significance unknown.