Beyond the "Dental".... There is LOT going on
OK, we better review

- Twelve Steps to Complete Oral Exam and Cleaning, Scaling and Polishing
- Oral examination on the unanesthetized animal.
- Oral examination under general anesthesia.
- Supragingival (above the gumline) plaque and tartar removal using calculus removing forceps, hand instruments, and power scaling equipment.
- Subgingival (below the gumline) scaling, root planing, curettage.
  - Definition; subgingival scaling; remove calculus and plaque from root
  - Root planing; smooth root surface using crosshatching strokes
  - Subgingival curettage; debride inner surface of sulcus; use curette in reverse position or use universal curette
- Polishing.
- Irrigation.
- Fluoride is placed on dry teeth and allowed to remain undisturbed for at least four minutes.
- Post cleaning examination and FULL MOUTH RADIOGRAPHY ON ALL ANIMALS.
- Charting.
- Therapy to treat lesions noted above. This is the only step that requires that pesky old doc.
- Home care instructions.
- Follow-up progress visits are as essential as any of the preceding steps.
  - I believe that Dr. Jan Bellows originated the idea of the 12 steps, but these procedures have been used by many. I have stolen this premise directly from Dr. Bellows.
1. Oral examination conscious animal

- Look for bilateral symmetry
- Communicate initial estimate of disease severity to owner
Note occlusion prior to intubation
2. Oral examination under general anesthesia.

- Note mobility, fractures, intrinsically stained teeth
- This is not the time to probe, wait until after removal of calculus
3. Supragingival (above the gumline) plaque and tartar removal using calculus removing forceps, hand instruments, and power scaling equipment.
Hand curette

Barnhardt universal curette; cutting edge inside and outside of curve

Gracey curette; cutting edge inside of curve
Piezo electric ultrasonic unit with periodontal insert
4. Subgingival (below the gumline) scaling, root planing, curettage.

Definitions:
1. Subgingival scaling; removal of calculus and plaque from root
2. Root planing; smooth root surface using crosshatching strokes
3. Subgingival curettage; debride inner surface of sulcus; use curette in reverse position or use universal curette
5. Polishing crown and minimal subgingival polishing

Remember; the polisher doesn’t polish, the polish does. USE LOTS. Polish is cheap.
After irrigation, gentle air flush will allow visualization of sulcus
7. Fluoride application

- Apply to dry teeth
- Allow to remain for 5 minutes
- Used as analgesic as much as strengthening enamel
- Do not use if planning composite resin restorations
41% of dogs with no visible oral pathology have some pathology on oral radiology.

Full mouth oral radiology takes:
- 5 minutes in cats
- 9 minutes in dogs

Full mouth oral radiology will allow huge improvements in patient care and will pay for itself in 11 weeks.

Nasty, infected retained tooth root fragment from careless extraction of deciduous right upper canine tooth.
9. Charting

- If you do not record it, you did not do it.
- This should be a graphic depiction of your actions and findings.
10. Therapy for pathology noted on examination

This is the first step to requires that pesky old doc
1. DEMONSTRATE; DO NOT SIMPLY HAND THE CLIENT WRITTEN INSTRUCTIONS
2. Reiterate instructions at treatment monitoring examination (7–14 days post-operative).
3. Be prepared to provide multiple options if fail at behavior modification for brushing
12. Pre-appoint for treatment progress appointments

- This is as important as any of the preceding steps
- There are two distinct steps
- 1. Initial healing. This is usually 7–14 days post-operative focusing on pain and healing of incisions. This is a great time to ask the client if they have questions.
- 2. Follow up cleaning, scaling and polishing. Defined by severity of oral disease, can be at 3 months intervals. Make certain that client understands that delay can result in more pain and more cost.
Instrumentation

1. Periodontal probes/explorers
2. Piezo-electric vs. magnetorestrictive ultrasonic scalers

3. Scalers
4. Curettes
5. Elevators
6. Luxators
Probes/explorers

Maintenance; very little, discard when markings no longer visible
Modified pen grasp

Use this for probes, curettes, polishing etc.
Most common hand curettes

Barnhardt (universal) curette; one cutting surface
Designed such that one curette can be used on all teeth

Gracey curette; cutting edge inside of curve
Designed in sets to fit varying surfaces of tooth
Cutting edge set at 60–70 degree angle to terminal shank
Sharpening equipment

- Loupes help
- Flat sharpening stone
- Round sharpening stone
- Oil for lubrication
- Cotton tipped applicators
- Test strip
Maintenance

- Try this YouTube video;
  - [www.youtube.com/watch?v=Y4s_q_AdK38](https://www.youtube.com/watch?v=Y4s_q_AdK38)
- My recommendation is to sharpen after each use (each oral procedure) as this is then very quick and does not feel like such a chore

Gracie curettes
Try the you tube video:
www.youtube.com/watch?v=NJCtg48VAWQ
Basically, you need to sharpen both surfaces of a universal curette

Stone at 2 o’ clock position for blade pointed at you; right blade

12:30 with blade pointed at you
Scalers

- Quite dramatically sharp at tip
- Used ONLY SUPRAGINGIVAL
- NEVER use beneath gingival margin
- Be careful as slipping can lacerate gingiva easily
- You tube; www.youtube.com/watch?v=YZ3p8qNMC5M
- Sharpen lateral sides only to avoid weakening blade
Elevators

Winged elevators (Wiggs) are blunt at tip and used to fatigue periodontal ligament while lacerating periodontal ligament circumferentially.
I like this video; grainy but has a unique approach

- www.youtube.com/watch?v=ijbeN2HEB9g
Luxating elevators

- Tools to fatigue the periodontal ligament
- Luxators
  - Sharp at tip
  - Used to cut as well as stretch the ligament
  - Angled to access distal teeth
  - More dangerous if used incorrectly
  - Sharpen surface AWAY from the tooth
  - Be aware of burs at concave surface; use round sharpening stone to remove bur
Luxating Elevators
Periosteal elevators

- My favorites; Molt 2/4
- Sharpen flat surface
- Important tip; last sharpening stroke should be away to remove burs produced by sharpening
Most common actionable pathology noted; pathology you need to react to

- Deep periodontal pocketing
- Uncomplicated crown fractures
- Complicated crown fractures
- Gingival recession
- Missing teeth
- Enlarged gingiva
- Oral masses
- Fistulous tracts
- OK, OK I give up... there are lots of pathologies that require response
Deep periodontal pocketing

- Basically two types
- 1. Periodontal pockets requiring closed curettage
- 2. Periodontal pockets requiring surgical intervention
- Most common type; periodontal pockets requiring closed curettage. This is important to Technicians
Indications
- Access to pocket without trauma to surrounding anatomy; IMPORTANT
- Cats
  - Periodontal pockets 2–3 mm
- Dogs
  - Periodontal pockets 3–6 mm
Piezo electric ultrasonic unit with periodontal insert
Closed curettage

Nice, straightforward 4 mm pocket

Use your curette to digitally examine pocket
Closed curettage using universal curette

Note shaft parallel to tooth axis

Tip shaft approximately 30° buccally to engage blade

The object is to have the working end at 90° to the tooth axis
Closed curettage

Introduce curette to base of sulcus

Engage blade and use scooping motion to dislodge plaque and calculus
Closed curettage using piezo-electric ultrasonic unit with periodontal insert
Flush, prepare and examine pocket

- Flush with three way syringe.
- Use gentle stream of air to examine sulcus as well as gently dry; do not desiccate
- Visually examine pocket
- Probe again for evidence of remaining calculus
Apply sulcal medication

Doxirobe gel

1. Introduce blunt cannula to base of sulcus
2. Fill sulcus to gingival margin
3. Apply several drops of water from three way syringe
4. Use reversed elevator to pack polymerizing material into extent of sulcus
5. Doxycycline has antibacterial, anti-inflammatory and collagenase inhibition
6. Remains active more than 8 weeks post mixing
Or……

Clindaoral

1. Introduce gel into sulcus as doxirobe
2. No polymerization required
3. Clindamycin has excellent activity against black pigmented anaerobes responsible for periodontitis
OK, this is not for Technicians, but we also use;

Open curettage

Indications

Dogs
- 6 mm and above periodontal pocketing

Cats
- rare
- Inaccessible periodontal pocketing
  - Often; rostral and distal mandibular first molar tooth

Furcation exposure
- Not always an indication for extraction
- Absolutely, cannot effectively debride closed
Class 3 furcation

IMPOSSIBLE to effectively clean without exposure