

SHOPPING LIST

A common question here and on VIN is in regards to what dental equipment a clinic should have. This is a huge question as there is so much available and much depends on experience and personal preference. So, I am going to give broad recommendations for the most part with a few specifics. I am going to refer to some of my personal favorites (companies and items) but these are not the only options by any means. Also, for some of the big-ticket items, I have had mine for years, they are working fine, I am not in the market and so am not fully informed about what is out there right now. You will have to do your own research on that.

This article is not going to cover how to use or maintain your dental equipment. For information on that you can have these chapters from my old text book (2004 edition so a bit dated).

[equip.pdf](#)

[sharpening.pdf](#)

[safety.pdf](#)

and this from the Old CUSP Articles page:

[waterlinetreatment.pdf](#)

Back to the shopping advice:

Value over Price

We all have to operate within our means and budget. However, buying on price is often false economy. When you go cheap, you usually get what you pay for and end up either dissatisfied or having to replace sooner than later. In the long run, you are far better off to spend a little extra initially and get good quality instruments and equipment. It will work better and last longer. Even if you have to extend your line of credit or lease to do this, it will make you much happier in the long run. I have never regretted buying quality.

Full Service over Discount Sellers

In the same vein, as well as deciding what to purchase, you need to consider who you are going to buy it from. Some distributors would be considered "full service" and others "discount" distributors.

A full service distributor is going to help you

select appropriate equipment, will help you with installation (and regulatory issues for radiology) and will be there to help you if you have problems with your purchase down the road. These 'value-added' services are invaluable and definitely worth paying a bit more for. So when looking at whom to buy from, ask them some tough questions. Do they have a loaner policy? Do they have their own service department or service people on contract that can visit and get you back up and running quickly? For instruments, what sort of warranty do they offer?

If you have a company that you know and trust and have a good relationship with and they are selling something you are looking for, buy it from them, even if someone else is offering to sell you the same thing for less. Everything breaks down eventually and when it does, you want to be calling a friend to help you get it fixed.

Play Fair

If you are dealing with a distributor who is giving you a lot of time and advice and assistance, buy from them. DO NOT get all sorts of advice and assistance from one distributor and then sneak off to buy from someone else (who has invested no time or effort to help you) just to save a few bucks. That is simply rude.

I was chatting with a distributor who had spent a lot of time (which is money) to obtain approval for the installation of a dental xray machine in an area that the clinic had been told they would never get approval for. This distributor had invested a lot of time to learn the guidelines, how to navigate the system and how to get approval. He used this information and did all the leg work to get the clinic exactly the approval they wanted. Then they bought their system from someone else who had invested nothing in the sale and so could undercut on price. How would you feel if you did all sorts of free work-up on a patient and then the client took that information and their pet to the clinic down the road to have the surgery done for a few dollars less?

Radiology

Intra-oral dental radiology is completely, totally and absolutely essential. Therefore, before you

consider equipment to treat dental disease, you MUST purchase equipment to diagnose it. There is more on this subject at www.toothvet.ca/Old%20CUSP%20Articles.htm.

You will need a source of radiation (an x-ray machine) and a means of capturing the image (film or digital sensor).

Just about any dental x-ray machine on the market today should serve you well. There are machines marketed specifically to veterinarians, but they really are no different than the machines marketed to the human dental market. There are just some minor cosmetic variations on the control panel. Things to look for are durability and stability. Ask for a list of references (clinics that have the machine) and call them. How long have they had their machine? Has it performed reliably and predictably for a long time? Does the tube head stay where it is placed or does it drift once hands are taken away?



My Gendex 770. I have had it over 10 years and never had a moment's trouble from it.

The other end of the equation is the image capture system. My strong recommendation is the ScanX CR (computed radiography) system for many reasons as outlined in http://www.toothvet.ca/PDFfiles/analog_direct_indirect.pdf, however, if you feel you must have a DR (digital radiography) system, I would recommend the Sopix2 sensor. I have both of these, use them both to their best advantage and like them both. If I could only have one, it would definitely be the ScanX.



The ScanX Duo scanner (above) used to read the thin, flexible phosphor sensor plates (below) which come in the same sizes as analog dental film.



The final component with either of the digital technologies is the soft ware. I am using Metron for both the ScanX and Sopix2. It is not perfect (nothing is), but I like it and I have had fabulous support. If I have a problem, I call the 800# at DVMConnexx, the tech logs on to my system remotely and fixes the problem while I am doing something else. And they are always cheerful!

The Dental Station

No matter what you plan to do with your dental service, you will need some power equipment to aid in sectioning teeth, shaping/removing bone and polishing teeth. For this, the only recommendation I can make is that you get one of the many air-driven dental carts. Which one? That is like asking which car I should get. All

have the same basic components and basically do the same things. The differences are in cosmetics, quality, options and after-market service.

As far as I know, all the machines being offered these days are good quality machines. I cannot think of any brands I have seen complaints about.

Service can be an issue, depending on where you live. I would always suggest buying a machine made in the country in which you live so there are no warranty issues imposed by crossing the border (some warranties are voided when the machine leaves the country of origin, so check into that). Also, machines made in one country may not pass inspection in another with respect to insurance liability (in Canada, you want CSA approval), so check with your insurance carrier to see if there would be any issues should your purchase burst into flames and burn down the neighborhood.



The HighDent Quattro from Dispomed. I have never used one, but I like the look of it and that it is Canadian made.

Every dental cart has at least three business ends; high speed hand piece, low speed hand piece and air-water syringe. The high and low speed hand pieces detach from the tubing to be serviced and autoclaved. Since this should happen between each patient and autoclaving takes some time,

you need at least two of each so one can be in the autoclave while the other is being used. When you buy a dental cart, it will come with one of each, so you will need to buy an extra of each.

For the high speed hand piece, you will need a selection of dental burs. For the general practitioner, carbide burs will be fine. To section the teeth, #699 (small for cats and tiny dogs) and #701 (larger) taper fissure burs are needed. For pretty much all other applications get a selection of round burs in sizes 1/4, 1/2, 1, 2, 4, 6 and 8. Get lots of each (they come in packs of 10 typically). They are intended for single patient use like a scalpel blade.



A selection of carbide dental burs. From left to right #1, #2, #4, #6 round, 701, 699L, 701L and a 701L surgical length.

For your low speed hand pieces, you will also need some proph angles (again get a few so you have one to use while others are in the autoclave). Then depending on the type/style of proph angle you get, you will need some proph cups. These rubber cups are single-patient use so get lots.

My preference for proph angles are the Young TS2® Triple Seal autoclavable angle (<http://www.youngdental.com/detail.php?urltitle=ts2>). I have been using these for many years and with care they just keep on going and going. You do have to purchase the brand-specific cups to go with them.



Young TS2 prophyl angle and selection of brand-specific, screw-in polishing cups and a point.

I would recommend that when shopping for a dental cart, you get one with venturi suction built in. Even if you have a Gomco surgical suction unit, having a gentle suction hand piece built right in to your cart can be invaluable. I may go days or weeks without using the suction feature, but when I do need it, I am really glad to have it.

Another option for many dental stations is fiber-optic light in the high speed hand piece. I would not bother with this. I would save that money and spend it on a good quality head mounted LED light that you can use anywhere and all of the time. Fiber-optic lighting in the hand piece only gives you light when you are using that hand piece and I have found that the fiber optic bundles do not hold up well to autoclaving (maybe they are better now - it has been a long time since I tried one).

Mechanical Scaler

For this I prefer a magnetostrictive ultra-sonic scaler. Other options include air-driven sonic scalers (noisy, less efficient and delicate) and piezoelectric (potentially more damaging to tissues and more expensive). The industry standard is the Cavitron by Dentsply. They have been around for decades. I have Vetroson® Millennium 25/30 from Summit Hill Laboratories. I have had it for over ten years and it has been solid as a rock.



Vetroson Millennium 25/30 scaler and a selection of stacks.

Hand Instruments

I am going to show a very strong bias here, for which I will not apologize as I feel it is well justified. Cislak instruments makes (or sources) a very wide range of dental and oral surgical hand instruments. This small company (father and son team) have been very generous supporters of veterinary dental continuing education, they have been responsive to our needs, designing veterinary-specific instruments. They also stand behind their instruments with excellent customer service. You can order direct (<http://www.cislak.com>) or in Canada, order through Serona Animal Health in Vancouver.

I buy all my dental hand instruments from Cislak. As I go through the list of hand instruments, I am going to be referring to the Cislak on-line catalogue as it appears at time of writing. Over time, page numbers may change but catalogue numbers should not.

Section One

On page five you will see that you can choose between 5/16 hollow handles or 3/8 Featherweight®XL handles for the same price. I prefer the wider handles as I find them easier to hold on to. This is a matter of personal preference. So maybe order some of each to see which you prefer.

P1 - dental mirror. There are times when they are very helpful. You should have a few.

P2 - combination Probe/Explorer. You need one for each dental tray



The probe and explorer ends of the P2

P3 - Towner/Jacquette scaler

P12 - interproximal scaler

P14 - thinner, more delicate Towner/Jacquette scale for smaller mouths



Various scaler blades.

P-103 - feline gracey curette kit with sterilization cassette

P46 through to P52 - the complete set of seven long canine Gracey curettes



Six of the seven shapes of Gracey curette shanks. The variety of bends in the shanks allows for more flexibility in reaching the various root surfaces encountered in different parts of the mouth.

Section 2 (Part 1)

Page 18 shows that you have a choice of handles here as well. I prefer the smaller, delicate handles for the smaller, delicate blades and bigger handles for bigger blades. Your choice may depend on the size of your hand and what feels comfortable to you.

EX-2 - spoon curette for debriding extraction sites prior to wound closure.



To the right is the blade of the EX-2, which is about 3mms across the spoon. To the left is a smaller excavator similar to the EN-8 found in section 3

Our patients and their teeth come in a vast array of shapes and sizes from cat incisors to great Dane canine teeth. Therefore, you will need a wide variety of shapes, sizes and styles of dental elevators (I have about 38 elevators currently). Again, since each patient should have freshly autoclaved instruments, you need at least two of each. The number of available options is huge. I will tell you which ones in the Cislak catalogue I have and like.



Just a sampling of the dental elevators I have on hand.

1.3S - a very small, delicate elevator I use for puppy primary teeth, micro dogs and most cat extractions.

100C is a smallish elevator for small teeth

EX3, EX4 and EX5 are three sizes of well designed surgical elevators for medium to large teeth

EX-W1 to EX-W8 is the full set of winged

elevators with blade sizes 1, 2, 3, 4, 6 and 8 mms across the blade. These are available with a "back bend" just above the blade to act as a finger stop and aid in positioning. They are also available with an inside bend. I have straight winged elevators in size 1, 2, 3 and 4 and back bends for my 6 and 8.

LT-2C and LT-5S are luxators (thinner blades than elevators). The thin blades make them more delicate but they can reach into tight spots better and so having some is a good idea.

Section 2 (Part 2)

WA-1, WA-2, WA-3 is the set of West apical root tip picks. One is straight, one bends to the left and the other bends to the right.



West apical root tip picks

EX-7 - Periosteal elevator. Listed as a feline instrument, I use this on everything from medium to monstrous dogs.



The working ends of the EX-7

EX-19 - Periosteal elevator. Similar to the EX-7 but smaller for use in cats and micro dogs.

Section 2 (Part 3)

I prefer small-handled, spring-loaded extraction forceps but occasionally I need some big ones.

EX-25 or K-1198 - nice long-handled forceps for grabbing big canine teeth in big dogs.

EX-26 or K-1203 - short-handled, spring loaded forceps for just about everything else.



Short handled, spring loads extraction forceps

#4658 or K4658 - Root tip forceps good for root tips, primary teeth and cat incisors.



Root tip forceps

Then you are going to need basic oral surgical instruments such as small sharp-sharp, iris scissors (K-4018, K-4526 or K-4044), needle drivers (I favour Olsen Hegar such as the K-4699) and fine tissue forceps like the Bishop-Hartman 1x2 teeth K-5604).

Section 3

There is not much here for the general practitioner as it has instruments for endodontics and restorative dentistry. An exception would be the EN-8 Excavator. In human dentistry, these are used to scoop out necrotic dentin when prepping a cavity for restoration. I use this small spoon excavator much like its larger cousin, the EX-2 spoon curette. As well as using it to scoop soft-tissue junk out of a small socket (cat premolar for example), it can also be helpful for scooping out little root fragments.

There are, of course, a great many more instruments in this catalogue and those from other companies. Much of instrument selection comes down to personal preference. I have outlined my preferences. You are welcome to have your own.

Other Equipment

Magnification



You will need some form of magnifying loupes or eye-glasses. There are many types available on the market. I have a pair of Designs For Vision glasses with 2.5 times magnification. These are custom built for my face and never get knocked out of alignment. I have had these glasses for over 15 years and aside from having to replace the arms (dirt-cheap at my optometrist's office), they have never needed any attention. The carrier lenses have my reading prescription in them and this can be changed at no charge as long as I own them.

Headlight



No matter how good your overhead surgical light is, there will be times in every case that it is not casting the light where you need it to go. Therefore a good head mounted light is needed. The current LED lights are very bright, run relatively cool and the battery packs last for several hours. Buy two batteries so one can be charging while the other is in use.

I have a Sheer Vision light but also hear good things about Peri-Optics lights. You definitely want a light with battery packs for freedom of movement.

Sharpening



Hand Instruments should be sharpened after every use. While this can be achieved with hand-operated stones, a sharpening machine like the Rx Honing System (<http://www.rxhoning.com>) is going to be a good investment. This can be obtained from Dentalaire and/or BorderLink (and possibly other distributors as well).

Disclaimer

As I mentioned at the outset, there is a lot more out there than I have covered here, both in regards to the equipment available and the companies who sell it. I have expressed my person biases based on my experience. Exclusion from the list of recommendation should in no way be seen as a negative statement about any product or company.