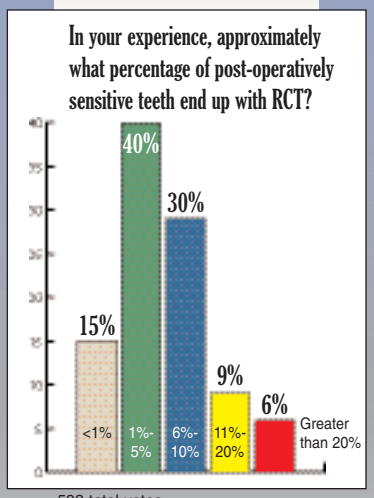
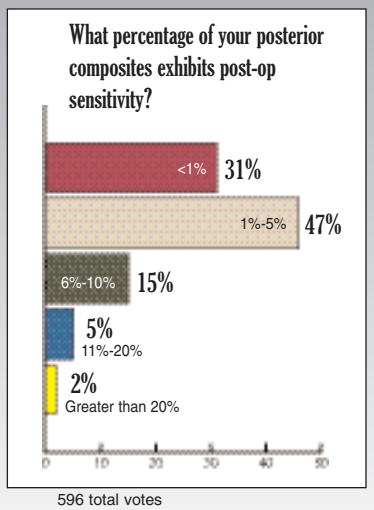
town•e survey



593 total votes



596 total votes

Source: DentalTown.com online survey April 8 - May 6, 2003

The Endo Files™

How do you handle short fills?

A Townie discussion from www.dentaltown.com

fsh2win

Posts: 18 **Reg.: 4/10/2002**

Posted: 4/8/2003 5:54:40 PM Post 1 of 20

I just finished a RCT on #29 due to caries exposure. I accessed, NaOCl rinse, etc. Used Root ZX to get WL, 17mm. Went through my GTs, made sure I had patency, checked WL w/Root ZX, 17mm. Prepared for fill w/Thermafil and AH 26, filled, PA and it's about 4mm short of radiographic apex…what's up? I figure the canal got tight there and that's why the apex locator gave me the short reading. Anything else to consider? Also to remove this stuff, what's the best approach to take? GTs to remove and NaOCl?

rhenkeldds

Woburn MA **Posts: 507** **Reg.: 1/10/2002**

4/8/2003 6:06:51 PM Post 3 of 20

You may need to consider if you had a bifurcation in the canal near the apex. I tend to rely heavily on my apex locator, but I usually find the radiographic apex and the actual foramen are not one in the same. I have this conversation with my local endodontists all the time. The standard of care is still considered radiographic apex. I can't begin to count the number of extracted teeth I have seen with grossly overfilled/extended gutta percha points that look fantastic on film.

I think that Dentsply makes a drill to remove the Thermafil points, then a # 20 or 30 file to remove the rest of the carrier and gutta percha.

drdice

Ontario, Canada **Posts: 1,471** **Reg.: 6/13/2000**

Posted: 4/8/2003 7:18:41 PM Post 4 of 20

I seldom take a trial file film any more except when I get a big discrepancy between working length from my starting PA vs the reading from the Root ZX. Yes, 90% of time Root ZX is right...but it's still worth taking that trial file film when your x-ray and the apex locater differ significantly.

rubber_dam_man

Posts: 2,033
Reg.: 3/28/2002

Posted: 4/9/2003 5:50:32 PM Post 6 of 20

With cold GP and AH 26 (EZ-Fill technique), you can take a film immediately after fill and if short or long you can just pull the point, make adjustment and try again. With this technique, there is no reason for less than ideal fill (if you can instrument to apex).

afponcho
Rochester, NY

Posts: 79
Reg.: 7/3/2002

Posted: 4/10/2003 3:37:16 PM Post 7 of 20

You can't always trust your apex locator. I like to use it for the initial length, clean and shape. Then, I always take a cone-fit film I also use warm vertical condensation and the cone-fit film is the most important film for this technique. This way you know where you are in the canal and you are not going in blind.

bmusikant
New York, NY
Posts: 249
Reg.: 6/8/2001

Posted: 4/12/2003 8:39:16 AM Post 8 of 20

Rhenkeldds, I am an endodontist and I wouldn't say that standard of care is gutta percha to the radiographic apex for the very reasons you have seen and could easily demonstrate. That standard was probably set before the advent of apex locators and like a lot of things in endo (to be specific) there is a gap between historical traditional ways of doing things and common sense.

Bringing up these discrepancies is a good service because it makes us think.

fbarnett

Posts: 170
Reg.: 6/23/2002

Posted: 4/12/2003 8:44:18 AM Post 9 of 20

I agree 100% with Barry...if you fill to the radiographic apex, you will be past the foramen in the vast majority of cases. It is absolutely 100% NOT the standard of care to fill to the radiographic apex.

babysilvertooth

Posts: 233
Reg.: 9/16/2002

Posted: 4/12/2003 9:36:57 AM Post 10 of 20

In the endodontists' opinion, what, if any, is the standard of care on the fill? Is it the apex locator, or paper point method, that gives you WL? I practice on extracted molars and know when GP peeks, I am probably long in real life, but on 'real life' PA, it would show to be at RT...and depending on where the canal really did exit, I might not even be at RT.

I am a GP and just trying to figure out if the majority of cases that I do confirm WL with apex locator/paper point, and then the fill is radiographically short what 'SOC' am I at? BTW, I still take a film to check length after I get to it with apex locator.

drscot

Posts: 7 Reg.: 5/17/2002

Posted: 4/12/2003 11:35:26 AM
Post 11 of 20

Dr. Ruddle has an excellent video on endodontic re-treatment that covers virtually all aspects. I think you can get at www.endoruddle.com. I highly recommend it, and for the same trouble you're having is the reason I quit using Thermafil and use the warm GP technique by Buchanan and Ruddle.

Reading your post its sounds like you took an apex reading after irrigation and access opening. I have found that my apex locator was more accurate if I started out with a crown down procedure and had a little extra space in the apical half.

bmusikant
NYC Posts: 249 Reg.: 6/8/2001

Posted: 4/15/2003 12:09:57 PM
Post 12 of 20

The standard of care really can't depend upon reaching the radiographic apex for reasons already stated. On the other hand, the apex locator is probably giving readings at the apical constriction

Continued on page 60

bmusikant

when the tooth is vital and still has an apical constriction. In vital cases this is probably the distance to aim for even if the fit x-ray shows it to be slightly short. In non-vital cases where periapical resorption may have occurred, going exactly to the apex probably has more merit because leaving any infected debris probably is more injurious than going slightly over the apex into a pool of granulomatous tissue.

We know that palatal roots and some distal roots bend in 2 planes and often have orifices that are not located at the zenith of the root so we already have exceptions to anyone who would want to make the radiographic apex the standard.

Personally, I think we let another factor color our attitudes. The patient goes to another dentist and in the time honored tradition of one dentist knocking another and degrading the entire profession in the process he may say endodontic failure obviously happened because the filling is either too long or too short which is the potential start of a lawsuit.

In these circumstances we look for absolutes where we really can't find them. It's bad enough we don't know for sure exactly where the gutta percha should stop. It's worse sometimes because of short-sighted self interest.

Topper
Paducah, KY

Posts: 392
Reg.: 10/1/2001

Posted: 4/15/2003 12:55:04 PM Post 13 of 20

The apical opening verses radiographic apex is a sticky one. Just this week I wanted to practice laser endo on extracted teeth. As I selected the teeth I wanted to use, I was amazed at the number that had their opening 1-3mm above the "radiographic apex". I think this is a very good reason endo fails even though the operator did everything to the standard of care.

If I had a short looking fill and yet it went to the apex locator apex I would wait and judge the treatment response before redoing the endo.

Continued on page 62

Continued from page 60

bsowatsky
Lititz, PA **Posts: 89** **Reg.: 9/24/2002**

Posted: 4/15/2003 1:11:26 PM
Post 14 of 20

When using an apex locator, I try to apply the "reasonableness" test. The radiograph of #29 should be relatively parallel, with little elongation or for shortening. Merely by holding a file up to the x-ray and estimating the working length, I can usually come within 1-1.5mm of the Root ZX measurement. If I am outside of that 1.5mm margin, it is time to take a film.

The average lower second Bicuspid overall length is about 21mm. Therefore, 17mm seems fairly short. I would think this measurement is suspect. It doesn't pass the reasonableness test. This requires confirmation.

babysilvertooth
Posts: 233 **Reg.: 9/16/2002**

Posted: 4/15/2003 6:05:00 PM
Post 15 of 20

So, if we are saying a 'short fill' may not necessarily be bad, what about a slight long fill? I can understand in a case without PAP, that you are invading the PDL. But, what about a case with a PAP, aren't you placing the GP into that area?

kejburks
Posts: 22 **Reg.: 9/12/2002**

Posted: 4/15/2003 10:18:43 PM
Post 19 of 20

John Schoefel describes most failures that are long radiographically as overextended, but underfilled. The problem is not that they extend beyond the apex, but that the diameter of the gutta percha is still less than that of the apical constriction and they leak. It seems to me that this is true. If the canals are cleaned well and then filled well, it doesn't matter if some of the filler extends beyond the apex.

With regards to the earlier discussion, it is common for the canal to exit the tooth short of the radiographic apex. If the apex locator gave what seemed to be a reliable reading, I would trust that more than the film.

Want to know more? This is just a sample of the information available on the www.dentaltown.com message boards in the Endodontics—The Endo Files forum—Search Words (typed exactly): short fills.

Looking for an apex locator?

At press time, some very interesting posts and recommendations were being discussed on apex locators in the Endo Files Forum at www.dentaltown.com. Go online in the Endo Files forum and discover what dentists are recommending. Type in the search words (typed exactly) EALs.