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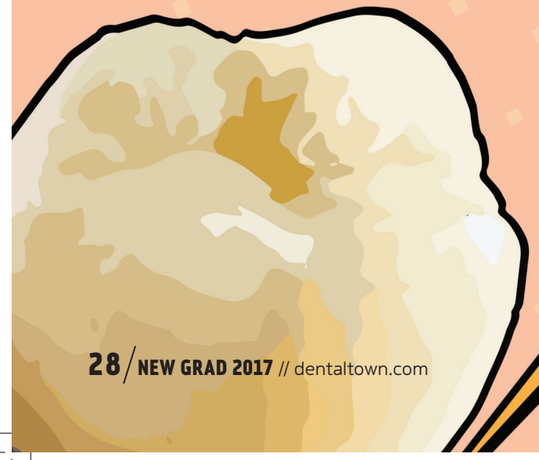
Crowns VS Fillings

Townie "Matty L" wonders where his peers draw the line between doing a filling and a crown



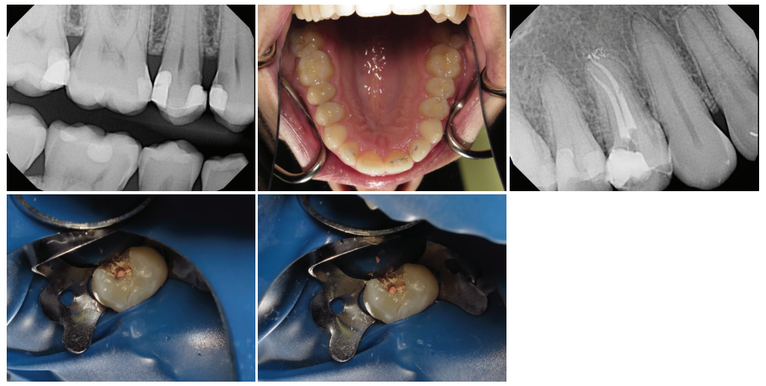
The Old Crown Vs. Filling Technique

Townie "Matty L" wonders where his peers draw the line between doing a filling and a crown

Matty L
Member Since: 03/02/14
Post: 1 of 86

A 33-year-old new patient came in with quite a bit of decay, but no wear or bruxing. Tooth #5 had a pulp exposure after excavating the decay (patient warned about this) and RCT was completed. I am struggling back and forth between doing a D.O. composite, a CAD/CAM "crownlay" or an E.max crown with supragingival margins. I am worried a typical crown prep will leave me with very little tooth structure and more buildup.

What say you? ■



6/22/2017

teethdood
Member Since: 12/29/05
Post: 2 of 86

I almost always crown RCT teeth. Seldom exceptions are made for those noncarious RCTs where very small access holes are made. You have plenty of tooth structure here and will have plenty left over after a crown prep. An inlay/filling does nothing to protect the tooth except plug the hole and prevent leakage. Tooth could still break and your very nice endo work will be for naught. I'd crown this tooth with a regular buildup. ■

6/22/2017

John Kanca
Member Since: 06/21/03
Post: 4 of 86

Given the hygiene and diet, I'd opt for the direct restoration, especially because there is so much tooth structure left. ■

6/26/2017

IHaveKnee
Member Since: 01/06/08
Post: 11 of 86

In theory, cuspal coverage would redirect the splitting action of the masticatory force. If it were my tooth, I'd crown it with a conservative prep. ■

6/26/2017

atadentalcenter
Member Since: 02/17/17
Post: 33 of 86

Eight teeth visible on the film. Six fillings present on the film. Looks like 6–7 teeth requiring multisurface restorations. ... You sure the hygiene is good? Sure seems like a lot of decay for a person with good home care. What is the best predictor of restoration success? Previous restoration outcomes. This mouth is blowing up with recurrent decay. The existing multisurface fillings on Teeth #2–5 all have profound recurrent decay. In my experience, the only restorations to have any sort of longevity in this type of mouth are crowns.

I would fill all the teeth on this film (for the most part), and inform the patient that he or she is going to have extensive treatment needs in the future, based on the fact that dental restorations do not last forever.

I would probably do a conservative prep E.max or BruxZir crown on the RCT tooth. If a large D.O. is placed, you may end up needing to RCT re-treat when the tooth gets profound recurrent decay again (like it had on the original D.O. composite pre-RCT) ■

6/26/2017

Tom Mitchell
Member Since: 02/16/04
Post: 37 of 86

You may have missed some of the info we've been posting about how easy, quick and successful you can be with these newer versions of bonding systems and composites. We've shown multiyear recall successes of large and small composite restorations. The key is attention to detail and, of course, isolation. In the case shown, even as mediocre as the restorations appear, the problem is hygiene, which actually is the best predictor of success (or lack thereof). There is no doubt in my mind that the endo tooth #5 can be successfully restored for many years in composite. If it fails because of hygiene, guess what else would fail? ■

6/27/2017

eeznogood
Member Since: 02/23/06
Post: 40 of 86

The problem in the OP's case is that the access is very discrete. Very nicely done. Such a small access, it would be a shame to crown this tooth. It would be the kiss of death if it were crowned.

A full-coverage crown will destroy all enamel and replace it with a porcelain shell, which will be sitting on a very narrow root, because the crown prep takes the margin down to where the diameter is much narrower. Just thinking about it makes me cringe.

With such a tiny access, all you really need is a D.O. composite. You did an amazing job at conserving tooth structure with the endo. Why destroy your nice work with a crown?

And then there is the economic argument. You have a lot more chances of having problems with a crown than with a well-done composite. All elements are pointing you toward a composite. ■

6/27/2017

DrMentch
Member Since: 09/14/09
Post: 41 of 86

I'll throw in my two cents: The decay on the mesial #4 and the distal #5 are a direct result of the open contact. Taking those two teeth out of the equation, the existing restorations are seemingly intact (excluding #2 M.O.) and there are a number of interproximal lesions that need addressing.

I would place a well-bonded core as a direct restoration, take care of the general caries and evaluate #4 at that point. Assuming that the restoration in #4 is well sealed and performing well, I would inform the patient and let her decide what happens in her mouth. I tend to lean toward crowning when there is a large MOD plus RCT. ■

6/27/2017

John Kanca
Member Since: 06/21/03
Post: 42 of 86

The hygiene is poor. The diet is poor. There is even the possibility of a chemical dependency here. I cannot understand why anyone would want to stuff a mouthful of expensive crowns into such a hostile environment. In my experience, reversing lousy hygiene and diet is limited in success.

Direct composite is a more prudent economic choice than a mouth full of expensive crowns until the patient demonstrates it's worth spending the money. Better to have recurrent decay on the direct than under a crown.

This is a disease. Caries control is one of the basic tenets of treating dental disease. ■

6/27/2017

Tom Mitchell
Member Since: 02/16/04
Post: 45 of 86

Many years ago when I was a student, we weren't allowed to do any crowns on patients who did not have excellent home care and controlled perio. Made us nuts because we were trying to get our requirements done. Ever since then, I don't do crowns on patients who don't have excellent hygiene and controlled perio; I've been doing composites only—yes, I know all about amalgam being a great material—until the environment is stable. Most of the composites have not needed replacing for any reason. ■

6/27/2017

Bald Eagle
Member Since: 12/07/07
Post: 49 of 86

If the D.O. "gets profound recurrent decay again," wouldn't a crown as well? A crown doesn't increase a person's resistance to caries; more likely, the opposite happens. Side note: I wouldn't call this a large D.O. but a deep one.

I restore a D.O. like this every day and it doesn't cross my mind to crown it. Why would an RCT change things? ■

6/27/2017

orangedoc
Member Since: 09/15/10
Post: 50 of 86

Are you saying a root canal doesn't change things? Have you ever crowned an RCT molar that had deep occlusal decay but pristine interproximals? Do you crown every tooth with deep occlusal decay? If yes, then no, why did you crown the RCT tooth? ■

6/27/2017

John Kanca
Member Since: 06/21/03
Post: 51 of 86

It's not about the enamel. It's all about the dentin. ■

6/27/2017

orangedoc
Member Since: 09/15/10
Post: 55 of 86

Well, I'm no endodontist, but I've yet to see a root canal that was limited to removal of enamel. Hence, a question like "Why would a root canal change things?" doesn't make a whole lot of sense. A root canal certainly changes things and must be factored into treatment planning for any tooth. Whether it changes things enough for this particular tooth to warrant an indirect restoration is still up for debate, but it's a critical factor in making that decision. ■

6/28/2017

John Kanca
Member Since: 06/21/03
Post: 56 of 86

Obviously you can do whatever you want, but in my opinion a crown is a waste of money unless this patient comes around. I think the direct restoration is money better spent, especially because of the overall situation. Doing the endo is offering a chance to make things better. And as I think was already said, more can be done if the yearly benefits aren't blown out on one tooth. ■

6/28/2017

orangedoc
Member Since: 09/15/10
Post: 57 of 86

If you want to start treatment planning based on available funds, that's another matter. If money was limited, I'd definitely focus on caries control throughout the mouth and do a really good buildup or a temp crown for the RCT premolar.

My comment was just pertaining to the root canal changing things. I can't see how you don't at least factor in the tooth having had a root canal into your treatment planning. ■

6/28/2017

Matty L
Member Since: 03/02/14
Post: 58 of 86

Wow! I was away for a few days, but am floored at all the responses and tips given. Thank you to all who have chimed in! The patient had not seen a dentist in over two years and while she says she brushes twice a day and flosses at night, I have a hard time seeing that. She did admit to a sweet tooth, especially for chewy candies that are allowed to sit on the teeth. We have discussed that at length and it hopefully won't be happening anymore.

All restorative treatment has been completed and we are waiting on her insurance pre-D for the crown. However, I am leaning to the same side as Dr. Kanca and others in recommending a D.O. composite. In the end, the patient will decide after I have given her all the info required to make that decision. ■

6/28/2017

JonHenley
Member Since: 12/18/10
Post: 61 of 86

There are lots of sides to this argument, such as cost, amount of tooth structure remaining, patient finances, oral hygiene, cariogenic diet, occlusal factors and patient choice. I'd been extremely lucky to work with my specialist endodontist in the next surgery to me for a number of years, until he was very sadly taken from us with illness. It gave me the chance to discuss cases with him at length.

He explained to me the main reason that posterior teeth usually required cusps coverage, in the most conservative manner possible (i.e., not necessarily a crown) was because root-filled teeth lose a degree of proprioception. (I recall a study in the literature stating this reduction to be of the order of about 30 percent.) So, if the patient were to bite down on, say, a piece of hard grain in some bread that she wasn't expecting, on a non-root-filled tooth, she'd have a reflex mechanism to release the bite and protect the tooth because of proprioception. This reflex mechanism is reduced in root-filled teeth, apparently. So a patient could bite down on that hard grain and not reduce the bite force via the proprioceptive protective mechanism, and potentially overbite on the hard grain and increase the risk of tooth fracture to what is often a heavily restored tooth.

The cuspal coverage could be a crown, an onlay, a direct composite onlay or even an amalgam onlay. Perhaps some endodontist could chime in with this. I agree entirely that when a root-filled tooth is minimally restored, I would prefer to avoid a crown, all things being equal, but I would probably consider cuspal coverage with composite. Not saying I am right or anybody else is wrong; this is just the philosophy that sits comfortably with me personally. Hope that this is of some help.

P.S. My colleague, Dr. Ian Alexander, is sadly missed, but very fondly remembered. ■

7/1/2017

vc1980
Member Since: 11/21/11
Post: 69 of 86

I've read a lot of personal experiences but so far no discussion of the evidence base. I reference Edelhoff when considering the destructive nature of a full prep. It's about 70 percent of an anterior tooth. Pradeep (2013) has studied fracture resistance of premolar teeth.

A key distinction is that a lot of posts simply talk about premolar endo teeth, but not all teeth are the same. An endo access with intact marginal ridge should not need cuspal coverage. However, Linn (1994) also reported that the presence of a single marginal ridge did not significantly increase resistance to fracture and recommended cuspal coverage. You then have to consider that the only RCT I'm aware of is by Mannocci, who said there'd be no difference in fracture rate in premolar endo teeth after three years. ■

7/4/2017

John Kanca
Member Since: 06/21/03
Post: 81 of 86

Quintessence Int. 1988 Jan;19(1):25-8.
Conservative resin restoration of endodontically treated teeth.
Kanca J 3rd.
https://www.ncbi.nlm.nih.gov/pubmed/3268896
Editor's note: View this post online for links to other relevant research. ■

7/12/2017

What do you think?

Search: "Old Crown Filling"

It seems as if there is more than one solution to this difficult case. How would you proceed? To ask questions, view more posts and more, go to **dentaltown.com** and search the message boards for "old crown filling"—this conversation will be the top result.