Fixed Retainer Wire
This Townie wants to know what bonded lingual retainers other Townies are using for long-term success.

Verbow
Member Since: 05/25/09
Post: 1 of 47

Hi all, wanted to get some input on what wire you’re using for bonded lingual retainers. We don’t do a ton of them, but when we do we use Reliance Bond-A-Braid. It’s easy enough to work with, but over time I’ve had issues with fraying (and then breakage) of the wire interproximally.

To those who have had good long-term success with bonded retainers – any suggestions?
Thanks!

Diane
Member Since: 11/16/04
Post: 2 of 47

If you are talking about lower 3-3s, .030 stainless steel, formed directly, micro-etched on each end, canines roughened with a green stone, bonded with Transbond LR. Bond-A-Braid always breaks for me, even for U1-1s.

Ellisjb
Member Since: 05/09/08
Post: 3 of 47

Upper bonded on each tooth from lateral to lateral – Reliance Bond-A-Braid. Lower custom 3-3 bonded only on the canines – .025 stainless steel round wire (RMO). These are made of models taken at the appointment prior to retention (one week) and just require an impression of incisors and canines, which you can take in a disposable partial impression tray.

The Bond-A-Braid has occasionally broken or frayed, but I wouldn’t say it is a big problem. I try to get the retainer as flush as possible and will sometimes need to use a Weingardt to squeeze the space closed interproximally after it has been bonded. It can make flossing a challenge, but the patients seem to manage. Also, I always check occlusion because if the patient is biting on the retainer (particularly the interproximal area) it is only a matter of time until it breaks.

Also, I occasionally just use a bonded upper 1-1 to keep diastemas closed. In this case, I use a .020 dead soft wire.

Like2drill
Member Since: 06/09/05
Post: 4 of 47

.0195 Hexacat (the more strands, the less fraying), custom bent upper 2-2/lower 3-3
Flowtain for adhesive
Use Concise if you want it to last a really long time. The paste is harder to work with (which is why I don’t use it), but the hardness of the material is greatly increased and it does not wear down like the flowable composites do over time.

Fesdds
Member Since: 05/22/08
Post: 5 of 47

17x25 TMA. We take a wax impression of lingual surface, pour with some plaster and bend wire before debond appointment. Roughen the lingual surface L3s and bond with Transbond LR.

Verbow
Member Since: 05/25/09
Post: 6 of 47

I guess I should have been more specific – we bond every tooth lower 3-3. We used to use a heavier steel wire bonded only on the canines a la Zachrisson, but tiny little rotations led us to bond all teeth.
I Googled Hexacat – may need to try it. Are you bonding all teeth with the TMA? Thanks for the input.

I agree with Diane. Bond-A-Braid always breaks for me. You’ll notice that even the manufacturer refers to it as “semi-permanent retention.” I can’t believe that no one has brought this up: Ortho FlexTech! This is the bee’s knees, in my opinion. There’s a bit of a technique to it but, man is it sweet!

Andy, do you just get samples of everything new that comes out and get to try it? You have knowledge about some of the most esoteric ortho stuff. I’m envious! What is Ortho FlexTech?

Andy, I’ve seen this wire (or a similar material) on transfer patients. You mentioned it’s technique-sensitive – any tips or tricks? Thanks!

Andy, what’s your secret with the Ortho FlexTech? I’ve tried it a little in the past but it was a lot different than bonding a normal wire 3-3. I’d like to try it again with your advice.

Dhmjdds, it’s a Reliance product made of linked 14K gold (white gold). The properties are really unique compared to any other lingual retainer material I’ve tried. It adapts well to the teeth because of the linkages, it’s really not possible to become active, and because it’s flat thin you can place it in the incisal third of the tooth and it’s still not noticeable.

Nice post, Andy. Ever notice food getting caught in there? I figure with the way the links are you can easily bond one tooth at a time and just go to the next without worry of any activation. I wonder why other companies don’t make stainless steel versions that are cheaper… or do they?

Andy, I used it on one patient. It seems so flaccid. I’m concerned the teeth will move. Are you heat-treating it? Have you noticed minor movement?
For my good friend pnw (this may be way more than you want to know), but here we go!

Like pnw, I tried this a while ago and never used it again for three years. Now I love it and it’s been a part of my daily life for about a year now. As was mentioned in a previous post, there are a few tricks to this that I find make all the difference for success.

1) Assure – the universal bonding agent from Reliance. For those of you that don’t know about it, this sealant contains the adhesion booster “enhance,” it’s a filled sealer… aka, it has little particles of resin in it for strength, and it bonds to metal.

2) Clearfil Majesty Flowable (Fig. 3).

It’s a nano-filled composite with a gigantic percentage of filler particles – something like >80 percent filled. The handling characteristics are amazing for us as orthodontists. I do my share of cosmetic bonding as “temps” and this material seems to have a navigation system built in. No running, just conforms to where I want it. Stuff is so dense it’s almost hard to cut. I use it for all of my pontics, bite ramps and a whole other assortment of things.

This takes me no more than five minutes to do total (realistically it’s probably half that time). I did three of these yesterday morning and took some pics to help demonstrate. May not be anything groundbreaking for some of you, but no lab time and only a few moments for me has been a big deal.

After the incisal, half the teeth are pumiced and etched.

**Fig. 4:** Measure the chain from the facial side – mesial third of cuspid to cuspid.

**Fig. 5:** On very dry teeth, after floss is placed as a rest for the wire, I apply the Assure, air blast and place some Clearfil. Because the flowable is really viscous, it almost “grabs” the wire and the floss rests support the chain.

**Fig. 6:** See how the chain just lays on the floss? I then add the composite over the wire, light pressure with the floss at the cuspid. Make sure the wire is in the incisal-third of the tooth and cure.

**Fig. 7:** Then I do the same thing for all four lower incisors – air dry, microbrush the Assure below the wire (and on the wire – it bonds to metal), air blast, flowable under wire, place wire into the cement and hold gently with the floss, and small amount of Clearfil over the top.

I do the terminal cuspid last with the same steps.

**Fig. 8:** Although it doesn’t really look like it from the angle of this pic, this wire is in the incisal third of the tooth, I swear.
Since I've been using this material and in this way, I've yet to have one completely pop off. I can't say this for other methods I've used. I have had a couple that debonded in the lower anterior with no noticeable relapse to the patient. Ironically, they have all answered yes to the questions “did you just get your teeth cleaned?” and “did the hygienist tell you about this in the middle of the cleaning?”

I don’t use bonded retention in every patient and I still like to use an edgewise wire turned on and bonded to strategic teeth for flossing purposes. From a cost analysis standpoint, it’s pretty low compared to a removable.

-30” of 14K gold wire is between $85 and $95 for me (that’s a lot of lower 3-3s).
-You can get 3.5 g of Clearfil for $50 – for those that don’t know, 3.5g is a really big tube. A lot of flowables are sold in 1.2g tubes.
-Assure is $50-60 and usable everywhere in the mouth (especially nice when you want to bracket a primary or fluorosed tooth). ■ andy