

Preventing Light NiTi Wires From Slipping Out

Light NiTi wires often slip out and poke the patient's cheek. How do you handle this situation?

Str8edge

Posted: 8/17/2011

Post: 1 of 22

Like reading about wires? Then check out these other message boards discussing wires.

Arch Form

Search: Arch Form

Fill Those Slots! And What's Your Finishing Protocol?

Search: Fill Those Slots

I would love to know how people prevent light NiTi wires from coming out of the terminal molars. This is probably my most common emergency, particularly in the lower, so I am in search of the best way to prevent this. I love using very light wires for a long time in many cases (not a Damon guy, but I think this particular concept is sound).

I have tried:

- Cinching back – not totally predictable with very light wires (lighter than .014) – a cinched back round wire can break, unravel or still irritate since it can roll around.
- Crimped-on wire stops – again, the wires still sometimes come out with very light wires, especially lower.
- Only connect to the bicuspid during the light wires – too many rotated second bis not aligning; also, inefficient for me since I like to stay in light wires for a long time and it is amazing how much light wires will do when you let them cook.
- Leaving a bit of extra wire and putting a dab of flowable on the end – always comes off.

I would love to hear other ideas about this.

Thanks! ■ LJ

ZXZXZX

Posted: 8/18/2011

Post: 2 of 22

We don't go into the 7s in anything lighter than an .018 super elastic. As you stated, they always have problems with light wires. So .014 goes into the 6s and we use a bend back plier and it seems to work. We 90-degree bend with the bend back. ■

dhmjdds

Posted: 8/18/2011

Post: 3 of 22

To answer your question, in the lower arch small NiTi archwires will pull out of the 7s in certain patients no matter what, it seems. We often cut the wires at the distal of the 6s, as Charlie suggests, but when we need that wire in the 7, we add crimpable tieback hooks to the wire just mesial of the 7 bracket and tie with an elastic. Still comes out occasionally. These little crimpable hooks are also handy to use for true tiebacks on NiTi wires that we are using in space closure cases.

But I agree there's no perfect solution. ■ Diane

ucla98

Posted: 8/18/2011

Post: 4 of 22

Because of these emergency problems, I don't like to keep the patient in the light wires for a long time. I jump to .018 SS as soon as I can (usually after second or third visit). For rotated teeth, I just bypass them and then use the open coil springs to create space. Once the spaces are created, I move back to .014 NiTi to engage these rotated teeth.

continued on page 16

I don't like bonding the 6s either (I band all 6s) because I don't like having to deal with the wire poking the patient's cheek when the bondable molar tubes come off. ■

BracesDude

Posted: 8/18/2011

Post: 5 of 22

I noticed my newest two assistants cinching back the lower .014 NiTi with a Matheiu pliers or hemostat. They orient the plier vertically behind the lower 6s with the beak closed. They consistently can get a hairpin bend to curl almost 180 degrees back against the tooth surface. We have to cut these out. I thought this was a nifty trick. Also works for loose cinches because of the common emergency of open coil spring coming off over lower 5s – when they need space – when we used to cut the wire flush. Maybe you should try it. Funny... I learn some little trick from every assistant I hire. ■

nysent

Posted: 8/18/2011

Post: 6 of 22

A large portion of my patients live quite far away from one of my associate offices. When I first started working there, I sent patients home with .014 NiTi with a crimp in the middle as the initial wire. I had scores of patients calling and returning with complaints of “poking wires” and blaming us for not doing a good job cutting the wires before they left the chair. I thought about the issue and decided to make my initial wire an 18x18 NiTi wire in 70 percent of the patients. The amount of complaining went down 99 percent.

For the remaining patients where I do start with a .014 NiTi, I have been instructing patients to try to cut the wire with a large fingernail clipper or with a small wire cutter sold at Home Depot or any craft store if the wire starts poking. I show them what a ligature cutter pliers looks like to give them an idea of the wire cutter to buy. Most of them seem to be able to do it.

We just got a “whale tail” pliers yesterday and I tried it on a few people where I inserted the NiTi wires from 5- 5. I had a 12-year-old girl who we bonded yesterday return today complaining of a poking wire. I was quite confused how she could have a poking wire as she has quite a few rotated teeth engaging the .014 NiTi wire that should have held it in place at least longer than the first day. Turns out, the assistant used the pliers to bend the end of the wire about a mile from the distal of the molar band without telling me so of course it was going to poke the poor girl. ■

flybywire

Posted: 8/18/2011

Post: 7 of 22

BracesDude, I do this too, but I make a 90-degree bend in toward the tooth. No catching on the cheek or poking the gums. A slight tug gets it out every time so you can reuse it if you need. ■

Str8edge

Posted: 8/18/2011

Post: 8 of 22

Thanks – there are some good suggestions here that I'm going to try.

Nysent, using an 18x18 as an initial wire? Doesn't seem like it would get rotations out very well and have you seen complaints of severe soreness go way up as well? ■

amalgamator22

Posted: 8/18/2011

Post: 9 of 22

I use NiTi “hammerhead” cinching pliers on every small NiTi and they almost never come out. Mine are from Orthopli. If they are all dirty I anneal the wire and cinch it. ■

Braces101

Posted: 8/18/2011 ■ Post: 10 of 22

Diane, what brand/product of crimpable hooks do you use? My crimpable hooks are too big to stay secured on a .014 NiTi. Any pictures would be much appreciated! ■

dhmjdds

Posted: 8/19/2011

Post: 11 of 22

Braces101, 3M Unitek split round tube hooks .016. Part number 536-610. Put them on and do the initial crimp with a sturdy Weingart. Then pinch them with the tip of a birdbeak to get them to stay on a .014 NiTi.

Some out there would say “those are too expensive.” But, if you can avoid extra appointments due to wire pokes, they are worth every cent. Sondhi said years ago that he calculated each extra appointment costs about \$100. ■ [Diane](#)

nysent

Posted: 8/19/2011

Post: 12 of 22

Str8edge, the patients who present with a lot of rotated teeth start with a .014 NiTi. If they are rotated or blocked out incisors, I will start with the 18x18 but skip those teeth. Later I’ll use the .014 NiTi when there is enough space to align those teeth. At this point, the patient has been coming to the office for six to eight months and is more experienced with handling life with braces. We tell them we are switching to a very “flimsy” wire to straighten out their rotated teeth and that this wire might slip out and poke because it’s so flimsy. We seem to get less heat if it happens in the middle of treatment than when it was happening in the beginning.

For some reason, a number of the cases in that office present with fairly well-aligned teeth but the chief complaint is spacing. The .014 NiTi was literally spinning in the brackets (we use In-Ovation R) but since the teeth are all aligned, the 18x18 is not hard to insert so I switched. Patients don’t seem to complain about severe soreness, we tell them they will be sore for up to a week when they get home and they are.

Also, many of these patients are adults. They seem to be able to handle soreness and the liquid diet (some of them love that they are losing weight!) but the poking wire drives them crazy. ■

umngmc

Posted: 8/22/2011

Post: 13 of 22

Like some other replies, I don’t engage 7s unless I’m in a 16x16 NiTi or greater. At our initial bonding, the assistants will flame the terminal 2mm of NiTi wire and then curl them in behind the 6s. If it’s a case that has a lot of crowding and requires a lot of unraveling then I don’t do the cinch backs. I almost never have a problem with light wires traveling or “pokey wires” in the beginning stages of treatment. Note, I’m .018 In-Ovation/Empower and first wire is .014 NiTi. ■

str8wire

Posted: 8/23/2011

Post: 15 of 22



I do what Diane does – especially for young kids with 2x4s.

I made a crude line drawing on my computer to illustrate – hope it makes sense. ■



ahayes

Posted: 8/23/2011

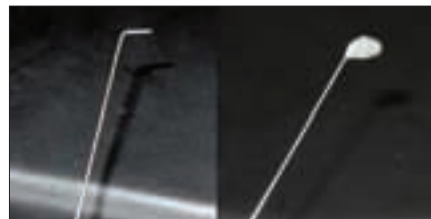
Post: 17 of 22



The way I see it, in light wires I’m not really leveling anything and not moving molars anyways. Oftentimes I just go 5-5 with the .014 NiTi initially (cinched long).

If you treat any lingual cases, you have these problems on a large scale because the initial wires are really small (.010 or .012) and the

patients feel anything. In journals I remember seeing cases where people would have composite on the end of the wires. Someone mentioned previously that always comes off and it used to for me too. I've found that it works well if you turn the wire first before adding the adhesive. I've had good luck doing it this way. You just have to make sure the flowable makes its way around the 90-degree bend so it doesn't pull out. ■



ooddx

Posted: 8/29/2011

Post: 18 of 22

We start virtually all our 18 conventional labial cases with .012 NiTi SE to the first permanent molar bonded tubes. After realizing that nothing holds the wire in the tube, we just cut the wire behind the tube and tell our patients not to worry too much if the wire jumps out of the last tube, but just let the wire stay under the tube. That way it doesn't poke, provided it is not cinched.

Second best solution we have tried was to cinch the wire with hammerhead pliers leaving some distance between the tube and the cinch. That way I believe that subsequent bending of the wire between 5-6 during chewing will not be "enough" to bring the cinched portion to the tube and through it.

We use three types of hammerheads, my favorite from IV-Tech, second the one from Hu-Friedy, third from Ortho Technology.

Sometimes I give our hammerheads a light blast with the sandblaster to remove polished areas in the inside of the concave beaks. Common problem being that thinner and shorter wire ends will slip from the hammerhead and refuse to be bent.

We always place an elastic ligature in cross/figure-eight pattern on the most rotated tooth. That stops the first wire from migrating and effectively derotates that tooth. ■ **dimitris**

hclburnzu

Posted: 8/29/2011 ■ Post: 19 of 22

If you definitely have to get to the 6s with a light wire, you can always laceback from the lower 6-5. ■

ddestang

Posted: 9/12/2011

Post: 20 of 22

A simple way of solving this is to keep cigarette lighters around! Heat the ends of the wires for a few seconds (not too long or else the wires will become brittle).

After heating, the NiTi can be bent as easily as stainless steel. Use a Weingart to bend the ends into a curved loop that doesn't pop out the terminal molars. ■

Wired

Posted: 9/12/2011 ■ Post: 22 of 22

Count me as one who does not include the 6s or 7s until I get to at least a .018 NiTi. ■

Find it online at
www.orthotown.com

Light NiTi Wires

Search

