

Dr. Tom Shakleton - What's with Clicking Joints?

Dr. Shakleton: Hi, my name is Tom Shakleton, I'm a general dentist in Calgary, Alberta, with a practice with a significant focus on oral medicine or facial pain. A common condition we see in our practice is somebody with a clicking joint, symptomatic or asymptomatic. So, I'd like to discuss that with you today. Diagnostics, treatment protocols and how we manage these folks. Often a clicking joint is related to an internal derangement of the temporomandibular joint called disc displacement with reduction. There are many reasons why doing clicks. But this is a common reason why. It's a pretty common. Thirty-three percent of the population between 18 and 55 have this. We do see it in people who are older than 55. We do see it in people who are younger than 18. So, but we do know about a third of the population have this. The good news is most of them completely asymptomatic. They don't have pain, they don't have dysfunction, they otherwise feel fine. And it's characterized by a click on opening, closing, sometimes both.

Dr. Shakleton: And this condition can be the result of microtrauma or macrotrauma. But if we look at this diagram, the schematics, looking at the letter A, we see that the disc, the cartilage between the mandible and maxilla has displaced. Typically, it displaces anteriorly, sometimes anterior/medially, sometimes posteriorly. Not commonly into the posterior, but typically to the anterior. So, as we rotate and begin to slide, our condyle will push up against the disc until the disc snaps back or clicks into place, that's the reduction. So, when two things physiological alignment and then go back into alignment we call that a reduction. So, this is a disc displacement with reduction. So, if we look at B, it's opening. C is the click. D, you get full range of motion. E, you begin the closing, and if there's a closing click, sometimes there is sometimes there isn't, you see that in letter F.

Dr. Shakleton: So again, the pathophysiology is there's often laxity in the ligaments. It can be the collateral ligaments, posterior and band tissue, or both. And it's often the result of microtrauma or macrotrauma. Think of microtrauma as daily repetitive strain. It's somebody who's clenching all day, cheek biting, lip biting. They have a chewing gum habit and they're always working the gum. Sometimes somebody who has nighttime bruxism have it. That's microtraumas, daily repetitive strain. Think of macrotrauma as a single event: blow to the jaw, airbag to the face, you know, hockey stick to the jaw. In Canada, we see these things quite commonly. We're a rough and ready bunch. If we see a joint like this and it's symptomatic, so symptomatic clicking joint, how do we manage that? First thing is avoidance. We have to tell them to stop clicking their jaw. So, but we also want to stop the habits that lead to this. So, avoid hard, chewy sticky foods.

Dr. Shakleton: Avoid the cheek biting. Avoid daytime clenching. And we also want to lubricate the jaw. We'll have them performance a hinge exercise. Sometimes a clicking

joint can be because of a stick-slip phenomenon where there's just not enough lubrication [inaudible]. So, we really want people to be doing this hinge exercise where they tether their tongue to the roof of their mouth, like they're saying the letter "N" and then they open. And usually tethering the tongue will prevent the click. And that helps keep the joint lubricated and often will reduce the number of clicks. Sometimes mainstay of treatment will be nonsteroidal anti-inflammatory medications. Nabumatone is one that I used to use, but it's not commonly available. But it's still around and it's an excellent medication. It's very user friendly. It reduces pain nicely. So, 500 milligrams twice a day for a couple of weeks.

Dr. Shakleton: Same with Celebrex. Ibuprofen, you have to take a little bit more frequently so clients may not be as good. Twice a day with the first two. And there are other nonsteroidal anti-inflammatory medications out there. But these are commonly used with this condition. Sometimes we can mix in a little acetaminophen or Tylenol, or Tylenol with codeine if they're quite symptomatic. One of my favorite medications is a steroid anti-inflammatory drug, where appropriate. So, make sure you're doing your drug/drug interactions, you're drug analysis, making sure there's no medical conditions that would prevent or contraindicate the use of this drug. But if your patient can take it, 2mg twice a day for four days, and then once a day for three days. Excellent pain management with that. Often, we will provide an appliance, whether it's stabilization appliance or an anterior repositioning appliance, and we have them ice their jaw three or four times per day.

Dr. Shakleton: If it's asymptomatic, and the good news is most of these patients are asymptomatic, they just will tell you. You'll just notice they're opening "click" and as they're talking "click". They may bring up to you, you know, my jaw clicks, it doesn't hurt but, what's the deal there? So, patient education and offering them avoidance, avoidance, avoidance. We want to try to reduce the number of clicks per day. I mean, we say five or fewer, often your patient laughs at you at that point and that's okay. We all live in the real world. We know they're going to sometimes click more than five times per day. That's okay. But just having an awareness. If they're eating an apple, don't try to wrap their face around an apple. Have them cut it into smaller pieces. Same thing with a big burger. People will say, but I love a big sandwich.

Dr. Shakleton: Who doesn't love a big sandwich? But if you tore cartilage in your knee, I would tell you high level soccer or basketball or hockey might not be in your best interest. Same thing. You have cartilage damage, ligament damage in your joint. Why are you trying to wrap your face around all of this? So, again, avoidance, take it easy. Give your jaw a bit of love. Because we're concerned about it becoming a disc displacement without reduction. And this can be a real problem. People will often report, my jaw used to click all the time and then, you know, I was sparring with a friend, or again, the airbag in the face. Or, I was

biting into something and all of a sudden now my jaw doesn't click anymore. I have exquisite pain and I can only open halfway. So, it doesn't click anymore because it's no longer reducing.

Dr. Shakleton: If you look at in this diagram, the disc no longer reduces. This ligament's been stretched so much now that the disc no longer snaps back into place. And it's painful because now they're riding on that posterior band of tissue fulltime. And it's painful. It's highly innervated and it's really sensitive and doesn't like abuse. And because it's not reducing, their range of motion is limited. So, these people are going to say, you know, I used to be able to open really wide, now I can only open halfway. And usually 25 to 35 millimeters is pretty common for these folks. So, what do we do with them? Well, first of all, we have to reassure them because they're a little freaked out. They're panicked, they're anxious, they're stressed, they're in pain, they're not happy. So, reassurance is key. But if it's, if they're in the acute phase, meaning there one, two, maybe three weeks after this has happened, often I will suggest an injection into the joint with some local anesthetic and steroid. Usually try [inaudible] because I want to try to mobilize [inaudible].

Dr. Shakleton: I want to reduce their pain. But I want to immobilize the joint and regain their range of motion. Because what we're going to try to form is a pseudo disc in that posterior band of tissue. So, um, sometimes though people aren't really interested in that, they want to just try to calm things down with an injection into their joint. So nonsteroidal anti-inflammatory drugs are great. Again, Nabumatone, Celebrex, ibuprofen. Sometimes some Tylenol, with or without things like Codeine/Tramadol. Steroids are common, especially if somebody doesn't want an injection, I will give them a steroid anti-inflammatory drug and then we're going to work on regaining their range of motion. Often with these people, we will make an appliance for them because we want to try to offload some pressure from those joints and ice. Ice is critical.

Dr. Shakleton: They need to ice, reduce their symptoms, help them keep going through their day. And there'll be eating soft food for a while and that's okay. Reassure them this isn't forever. But we want to try to just, um, it's, think of it as an acute injury to their joint. If they had an acute injury to their ankle or their knee, they're going to take care of that. They're going to ice it. They're going to give it some love. They're going to elevate it, whatever. We want to take care of the joints in the same fashion. Often, as I mentioned, we will do joint injections for these folks. There's two medications that people typically use for joint injections. Hyaluronic acid, which is common. And this can be for painful clicking joint. It can be for arthritic joints, and we do them every three to six months.

Dr. Shakleton: Hyaluronic acid is a joint lubricant, it has the viscosity of honey. It can be a little bit of an uncomfortable injection. So often we'll drop just a little bit of Lidocaine in the area right before we do the Hyaluronic acid injection. Make it a lot more

comfortable for your patients. Often, we'll use steroid, with local anesthetic. I like 20 mg of Triamcinolone with half a cc to maybe 1 cc of 2% Lidocaine. No Epinephrine. So, and we'll do this for either TMJ osteoarthritis, disc displacement without reduction. Occasionally we will do it for somebody who has disc displacement with reduction, but they're in the acute phase and nothing is calming it down. They're just in so much pain. And this is a picture of me performing a steroid injection on a patient with a very [inaudible]

Dr. Shakleton: Appliance Therapy. Many of us make appliances. Common appliances we use are stabilization appliance. This is the most common appliance I use. It's flat plane. It has balanced contacts at maximum intercuspatation, although not really at intercuspatation, but they should have balanced contacts in maximum closing. Group function with lateral movements. And if you look at these diagrams, we can see it has a nice balanced bite. They're 2 to 3 mm thick and they can be maxillary or mandibular. Studies show that it doesn't really matter whether you do an upper or lower appliance. Part of it is due to patient preference and part of it is due to your preference. I tend to make maxillary appliances. They work a little nicer in my hands. But if somebody wants a mandibular appliance or we want to do a mandibular appliance for any reason, then we're already perfectly comfortable doing that.

Dr. Shakleton: The anterior repositioning appliance is often used in somebody who has an acute disc displacement with reduction. You know, again, blow to the jaw, something happened, they yawned, they bit into something, they had surgery, third molar extraction, appendix out, whatever, and now they're disc clicks And it's really sore. What we want to do is while that posterior band of tissue is healing is get them onto their disc as often as we can over the next four to six weeks. And so we'll often pull their jaw forward, like a sleep apnea appliance. We're not making a sleep apnea appliance because those are too expensive, but we use an anterior repositioning appliance because we can later on convert this into a stabilization appliance. So, they wear this usually at night. They can wear it during the day. I prefer them not to wear it all day. Many people prefer to wear it during the day, all day, because it offers them symptom relief. But I let them know there is not an insignificant chance of a bite change. And if there is a bite change, sometimes it will work itself out. But sometimes it will require orthodontic treatment to manage.

Dr. Shakleton: So, again, if somebody wants to wear it during the day, I say please only for an hour and then taken out and let your jaw settle back to its normal position. Once they're asymptomatic, typically in four to six weeks, we'll grind the ramp off and turn it into a stabilization appliance. And the anterior repositioning appliance, as you can see, out of the mouth and in the mouth, has a little ramp that will pull the lower jaw forward. And when we're taking our bite, we want to take it so that we know that the disc has reduced. And again, they wear this at night and maybe during the day for an hour or two here or there. And the nice

thing is when we're finished, or after four to six weeks when they're a little less symptomatic, we can grind that ramp off and turn this into a stabilization appliance in many cases, not every case, but many cases.

Dr. Shakleton:

So, I hope this has helped you feel a little bit more comfortable with clicking joints. Hopefully appreciating that the mainstay of treatment is avoidance and we don't cure this, but we want it to not worsen, we want to reduce the symptoms, improve their function and hopefully not see it become a non-reducing disc displacement. Thank you for your time. Have a great day.