



Among many diagnostic tools Dr. Ferzli uses is the motor nerve reflex test, with which he assesses the patient's autonomic system. "That is the part of the brain that allows you to function without thinking about it—all the things you don't think of to maintain your balance," he explains.

## Starting at the Top To Correct Imbalances

Little shifts loom large when it comes to balance, according to Dr. Charles Ferzli of the TMJ & Sleep Therapy Centre in Cary. "And an imbalance in the mouth or jaw joint can often result in a cascade of problems throughout the body," he says. "For example, a toothache may cause an imbalance in the bite, which in turn throws the posture out of balance—setting off that cascade.

"We see these linked problems often," he explains. "Because when someone experiences jaw-joint pain, the brain's natural response to avoid pain is to position the head forward and to the side. When you do that, it changes your shoulder balance, and then it changes your spine posture, and then it changes your hip balance—because you're putting more weight on one foot."

Addressing those problems, he notes, "Is sometimes not so much about adjusting the bite as neutralizing the nervous system—which is the primary source of instability. By decompressing those areas that are causing pain, the brain calms down, the bite rebalances itself, and the teeth don't hurt anymore.

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"What we often find when working with people dealing with jaw-joint pain, is that when we decompress their jaw joint, it relieves their jaw pain, but there's still the need to bring the rest of their body back into balance," he observes. "Their shoulders have been accustomed to being canted a certain way for a long period of time, so the muscles are used to being in that position and it's not comfortable going back to neutral. So we talk about 'unwinding' the whole spine and the whole body when we treat them, which we sometimes do in collaboration with a chiropractor or physical therapist. When we repeat our photographs 12 weeks down the road, we noticed that their posture has changed."

### RELEASING THE TONGUE-TIE

"The fundamental lesson," says Dr. Ferzli, "is that all parts of our body are tightly and intricately connected, and imbalances in one area often provoke problems elsewhere. We see many

examples of this in dental work. TMJD is one example; tongue-tie is another.

"The tongue," he explains, "is connected all the way to the toes through the fascia, a multi-layered band of connective tissue that encases and connects all the organs and major systems in the body. In the case of a tongue-tie, a small fold of tissue prevents the tongue from extending up or forward because it's tied to the floor of the mouth. This seemingly small problem can give rise to a whole series of significant health issues, including sleep problems, growth issues, altered posture, and even digestive issues."

The solution to this problem is a relatively simple surgical procedure called a frenectomy. "What's remarkable about this operation," says Dr. Ferzli, "is the wide-ranging impact it can have. In addition to resolving many of the direct problems caused by the tongue-tie, such as sleep and speech difficulties, a frenectomy can release a tremendous amount of tension—and thus relieve pain—in the head, neck, and back."

He describes one drastic example of an older woman who had coped with tongue-tie for many years. Although her speech had been unaffected, the condition had had a profound effect on her posture and balance. "She noticed immediately after the surgery that she had less jaw tightness and less jaw pain. But we didn't realize what a big difference the frenectomy had made until we saw photos taken 12 weeks after her surgery—of her standing with a different and improved posture."

### CONNECTIONS

The connections between mouth and body work in both directions, notes Dr. Ferzli. "Just as TMJD can result in posture imbalances, trauma or structural problems can lead to TMJD. For example, the loss of the posterior teeth can make people more prone to jaw problems. That is because there's no longer a posterior stop to your bite, so the jaw can rock back and create more compression—and pain—in the jaw joints."

The list of seemingly unlikely connections also includes a correlation between sleep apnea, jaw-joint problems, and periodontal disease. "Sometimes we see someone with a jaw joint problem and find out they have a sleep problem and periodontal disease as well," says Dr. Ferzli. "And fixing the sleep problems may well help your periodontal disease and jaw joint problem get better!"

Tinnitus is yet another example of the ripple effect, where an inflamed jaw joint can be connected to ringing in the year. Jaw injuries can even cause vertigo, as Dr. Ferzli discovered with one patient (see sidebar).

Dr. Ferzli's approach to restoring balance reflects his understanding of how our bodies respond to these many "connections." Or, as he explains, "The brain has a different order of priorities when it comes to balance. When we test someone, we may find different injuries, but there's one that affects the balance more than the others. So that's what we target and sometimes when we do, the others calm down and get better." **h&h**

## "THE WEIRDEST DENTIST APPOINTMENT EVER"

A patient we'll call Joyce first went to see Dr. Ferzli for help with her TMJD and, later, to get a second opinion on a proposed root canal. In Joyce's estimation, that visit became the "weirdest dentist appointment I've ever had."

As she tried to sit up after lying down in the chair, Joyce felt dizzy. What Dr. Ferzli had not known was that Joyce had suffered bouts of vertigo for decades. "Sometimes it gets so severe, that I literally cannot get out of bed, and when I do, it's to go to the bathroom and throw up," she says. Even with the help of specialists, Joyce had never received a definitive cause or resolution for her vertigo.

But this time would be different. After Dr. Ferzli discovered a peroneal nerve injury in Joyce's foot, he tested her muscles, since he knew this injury can make people feel unbalanced. He then placed a toe spacer between two of her toes to decompress the nerve, and asked if she felt dizzy. To her astonishment, she didn't.

"Often, injuries in the jaw joint and the feet can cause dizziness and vertigo, like an on-and-off switch," explains Dr. Ferzli. "While the toe spacer isn't a cure-all, it's the start of a process that can also include continued work with a physical therapist or a podiatrist."

In addition, Dr. Ferzli continues to work with Joyce to slowly reposition her jaw to relieve her mild sleep apnea. This treatment requires two dental appliances, one at night and one during the day. The appliances help to keep her tongue in the right position so she can breathe better, which helps her sleep better. "Because I'm sleeping better," Joyce explains, "I'm getting more oxygen and I'm not getting as dizzy."

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