CHAPTER 3
THE IMPORTANCE OF FINDING THE SOURCE— ESPECIALLY FOR ATHLETES

There is nothing sudden about a heart attack; it takes years of preparation.

Thirty-nine-year-old Justin was a busy business executive from Milwaukee, Wisconsin, who was in town for work when a colleague suggested he come see me. He was an ultra-distance marathon runner who was training for a fifty-mile run through the woods. However, his times had been getting slower, because he'd been having chronic knee and hip pain for about six months, hindering his training.

He wasn't taking any medications but was under the care of a chiropractor and receiving treatments weekly to attempt to stay ahead of his knee and hip pain. He'd been to an orthopedic surgeon and various other doctors, who had tried foot orthotics, stretching exercises, and different modalities, but nothing had really been able to kick the knee pain. Justin wasn't sure what was causing it, and his doctors were also baffled. Pretty much everyone chalked his problems up to his running, believing he was probably just pushing himself too hard. But Justin was committed to being in an ultramarathon, so he was working through the pain.

Admittedly, Justin was reluctant to see a dentist about knee and hip pain, but his colleague explained that we see chronic pain patients and our goal is to get to the source of the problem, figure out what's wrong and who can help, and then provide a treatment plan to help patients get better.

Justin's victory was to eliminate his hip and knee pain and feel better while running. Initially, we explained that his knee and hip pain could potentially be related to his chronic breathing issues revealed in his medical history, or to the clicking and popping within his TM joints.

VICTORY

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Justin agreed to undergo a comprehensive exam. The exam would allow us to determine the three things that all patients want to know:

1. What's wrong?
2. What can we do to help?
3. How long will treatment take?

The exam revealed substantial findings. The evaluation of his posture showed that he had extreme forward head position and his feet were divergent, basically pointing outward, like a duck. When the head is postured forward, the feet must be divergent in order to hold the body upright. Poor balance will result in forward head posture, leading to structural decompensation. In addition, every inch that the head is forward puts an extra ten pounds of weight on the spine—that's the basic physics of these situations.

Forward head posture like Justin had is commonly associated with chronic nasal obstruction and craniofacial pain. An examination of his head and neck muscles revealed that they were extremely tender, specifically around the TM joints. He wasn't even aware of how painful they were but applying only three to five pounds of pressure to specific areas revealed significant discomfort.

In Justin's case, it seemed likely that his chronic forward head posture was the culprit for his knee and hip pain—aka postural decompensation. Again, since the body has the innate ability to compensate for other structural injuries, it can produce symptoms that seem unrelated but are actually connected in some way. Postural decompensation is the improper distribution of our body weight resulting from maladaptation of the normal mechanisms for homeostasis. Thus,

one ailment produces improper posture and that decompensation produces additional problems like a domino effect. The extra weight of that forward head position required Justin's body to deal with unbalanced forces as he was running, and it wasn't until he began stressing his body for the ultramarathon that the imbalance began to cause noticeable pain.

Justin's case demonstrates why posture photos are an important part of the intake process. Those photos help identify how a patient's skeleton is bearing the weight of their bones while in a standing position. Imaging of the TM joints is also crucial, helping to reveal whether there is osteoarthritis in the joint or potential dysfunction of the airway passages. When we image TM joints, we acquire data of the facial structures between the TM joints, so we see the anatomy of the face, nasal passages, and sinus cavities. Justin's imaging illustrated a chronic sinus infection, a deviated nasal septum, and a bone spur of his left nasal passage. These were causing him to have a chronic nasal obstruction, which was causing his forward head posture.

By digging a little deeper, we found that Justin also had gastroesophageal reflux (GERD), or heartburn, which he had tried to remedy with dietary changes. GERD can also be a symptom of mouth breathing or an obstruction of the airway. When a person chronically breathes through their mouth, it can dry out the airway, leading to irritation. Mouth breathing can also lower the body's pH and cause negative pressure that pulls up the acid contents of the stomach, causing GERD. Now, there are numerous causes for GERD. In my evaluation, I simply

want to rule out or confirm that the cause is under my area of expertise. After explaining that to Justin, he disclosed that he was a chronic mouth breather, something he always thought was normal since he had never really breathed through his nose. Patients commonly adapt to what seems "normal" when they have never experienced what actually is normal and healthy. "Since you've never breathed through anybody else's nose, you can't be expected to know what is normal and healthy. You only know what you've experienced yourself," I explained to him. After all, we only know what we know, and we don't know what we don't know.

Justin's situation is similar to what often happens in life. An analogy I like to use is that of changing the oil in the car. That should be done every five to ten thousand miles. If the oil change is delayed to, say, twenty thousand miles, the car may continue to run "fine" without any noticeable problems—until it breaks down and leaves you stranded on the side of the road. Once the car is in the hands of the mechanic, he or she will open the hood, look inside, and identify the problem. On the outside, the car seems fine, but under the hood there's a problem—maybe even multiple problems, since the oil change was delayed for so long. Yes, it was running "fine" on Tuesday, but Wednesday, when it ended up in front of trained eyes, the longstanding problems could be identified rather quickly.

Justin had several problems "under the hood," so to speak, but until he had appreciable symptoms, he just kept on going. That's why the phrase "There's nothing sudden about

a heart attack" often rings so true. Until a person is privy to what's brewing under the surface—until a physician warns them that they have high blood pressure that needs to be addressed—they'll keep on going with the busyness of their life, never realizing that they have cardiovascular disease.

Health problems are often asymptomatic (lacking symptoms) until pain or a disruption in life occurs. Take cavities, for instance. Until a cavity becomes symptomatic or painful, it usually goes undetected by the patient. That's why dentists periodically take X-rays. They want to identify cavities in order to catch them early, before they start to cause pain. Early identification can alleviate the need for a root canal or having a tooth pulled. This same early identification rings true for temporomandibular joint disorders (TMD) and sleep breathing disorders (SBD).

LOOKING UNDER THE HOOD

As a trained professional, the TM joint specialist's job is to look under the hood, see what's brewing, and try to identify the origin of the problem. Identifying the origin of the problem is the best way to get sustained relief. Dr. Olmos says that an accurate diagnosis is 95 percent of effective treatment. That's the only way to know exactly what to treat and the only way to achieve a patient's victory. That's why the intake process with patients is extremely detailed and involves the medical history and the journey the patient has been on. Every day,

patients tell me they truly appreciate our thoroughness and did not expect us to go into such great detail.

Another reason for taking a deep dive into a patient's medical history is to build trust and rapport. I need to hear the patient's story. That helps patients relax and feel comfortable enough to reveal background information that they may have thought irrelevant to their problem. A relationship built on trust helps surface sensitive issues such as eating disorders, depression, suicide attempts, and other medical concerns that have been building for a long time. Getting permission from the patient to understand and learn about those allows for a more accurate diagnosis and a better treatment plan, allowing providers to be a better resource for patients. I, for one, feel honored when a patient shares a painful experience with me. It motivates me to help care for them better and to work ceaselessly to ensure they get accurate treatment, whether with my office or with another provider.

Getting to the source of the problem is why the first evaluation takes an hour or more, and why the clinical exam is so comprehensive. That comprehensive exam helps identify all the underlying issues that may be related to the patient's symptoms.

Again, with chronic conditions, the site or location of the pain is often not the origin of the problem. Dr. John Beck, an orthopedic surgeon, wrote: "Chronic pain symptoms are often trade-offs the brain is willing to make to

protect a higher priority life process. Simply stated, pain is not a survival priority in nature."[4]

Chronic pain is usually a functional condition. In Dr. Beck's opinion, medicine has come to rely too much on radiological and electrodiagnostic technology and not enough on testing based on how the body functions. Novice physicians just entering practice quickly learn that back pain encompasses far more problems than answers using the standard methods of diagnosis. That's why evaluation of chronic conditions must look at the patient's functionality. It needs to consider how the person walks (their gait), their posture when standing, and how the nervous system reacts to different kinds of stimulus.

To evaluate the nervous system, Dr. Beck devised a series of tests of neurological reflexes known as autonomic motor nerve reflex testing (AMNRT). These are tests of the autonomic nervous system, which controls the internal organs such as the heart, lungs, stomach, and kidneys. The autonomic nervous system is composed of the sympathetic (fight-or-flight) and parasympathetic (rest-and-digest) systems, which I discussed in Chapter 2.[5] The reflexes are used to identify the primary structural instability, which

4 Beck, John L., "Practical Application of Neuropostural Evaluations, The P.A.N.E. Process: Basic Principles and the First Three Tests," *Practical Pain Management* 8, issue 7 (September 2008): 47–53.

5 Low, Phillip, "Overview of the Autonomic Nervous System," Merck Manual, accessed April 14, 2018, https://www.merckmanuals.com/home/brain,-spinal-cord,-and-nerve-disorders/autonomic-nervous-system-disorders/overview-of-the-autonomic-nervous-system.

helps determine which health professional needs to assist the patient.

In Justin's case, motor nerve reflex testing illustrated that his TM joints were the primary cause of his structural instability, which meant that appliance therapy was the best place to start in solving his problems. That's based on Dr. Olmos' findings that I mentioned in the previous chapter, about treatment for TMD pain and TM joint pain using intraoral orthotic therapy to upright the head posture an average 4.43 inches.[6] In other words, by correcting the position of the TM joints through orthotic therapy, the head is able to move back over the spine, reducing pain and inflammation in other areas of the body while improving breathing.

WHERE THE PROBLEM LIES

As I've mentioned, patients often come to us for what they believe is a specific problem, only to find that their pain is coming from somewhere else in their body. For instance, a patient's back or knee pain may actually be caused by problems in the TM joints. Conversely, chronic facial pain may actually be caused by an injury to the foot, back, or neck. The pain in their face is only a symptom; the injury to their back is the real source of the problem.

The intake and evaluation processes are about acknowledging the patient's pain, identifying all their issues, and then

6 Olmos, Steven, et al., "The Effect of Condyle Fossa Relationships on Head Posture," *The Journal of Craniomandibular Practice* 23, no. 1 (January 2005): 48–52.

giving them hope that there's a solution for their problems. That can be a struggle for the patient to comprehend. For instance, if they come in for jaw pain, and the evaluation instead seems to center on their nasal passages, they sometimes grow frustrated because they feel their concerns are being overlooked. But consider it from this angle: If water is dripping from the kitchen ceiling, that's what the homeowner will want repaired. But if a handyman finds that the leak is coming from a hole in the roof, then patching the kitchen ceiling isn't fixing the problem unless the hole in the roof is also fixed. That means calling in a roofer to do their share of the repairs first, and then patching the kitchen ceiling.

Like the roof, it often takes a team to deliver a sustained victory for patients. That's what it took in Justin's case. Since he was diagnosed as having nasal congestion, during treatment he was referred to an ENT physician who started him on over-the-counter sinus rinses and nasal sprays.

JUSTIN'S VICTORY

Justin's primary problem was determined to be capsulitis of the TM joints (inflammation of the joint capsule), which led to his chronic forward head posture. His nasal obstruction was at the heart of the issue as well. To rehabilitate and reduce the inflammation and clicking noise in his TM joints and help him learn to breathe through his nose instead of his mouth, he underwent decompression orthotic therapy,

which required him to wear daytime and nighttime orthotics for twelve weeks. Those appliances stabilized his maxilla and mandible by placing them in a neurologically orthopedic position and helped upright his head on his spine to stabilize his posture. He also wore the daytime orthotic while running and while working out, which were the times he was putting the most force on his TM joints.

Just three weeks after receiving his orthotics, Justin reported that his sleep had dramatically improved. As with his mouth breathing, Justin thought that his sleep was fine; he didn't even realize it was subpar. Now that he breathes better while sleeping, he is able to sleep more soundly and feels far more rested when he wakes up. He is also able to breathe better while running, because he regularly uses a sinus rinse and wears a Breathe Right strip when he runs.

At his three-week evaluation, his head posture had also uprighted, alleviating his knee pain and jaw clicking, and nearly alleviating his hip pain. After twelve weeks, he had no hip pain and he was running better than ever—beating all of his previous times. He no longer needed physical therapy, massage therapy, or chiropractic care.

The Saturday before that twelve-week visit, he ran twenty miles, a distance that would normally have made him rest for the remainder of the day. Instead, he was able to go home after his run, play with his kids, and even mow the lawn. The next day he was a little sore, but he was able to function fully without taking the day off. "I definitely feel

like the treatment has helped improve my running (and) my breathing," he said.

Treating the TM joint dysfunction and uprighting the head posture made a significant difference for Justin.[7] Had his TM joints and chronic sinus disease not been accurately identified as the cause of his forward head posture, and his forward head posture as the cause of his hip and knee pain, then dental treatments would not have provided him answers. Instead, just a couple of weeks into treatment it was apparent that the appliance therapy was the best solution—and the results were amazing.

It's surprising how often we see situations like Justin's in our office. As TM joint and sleep specialists, patients often report having chronic facial pain, headaches, dizziness, blurred vision, and other symptoms that they don't think are related to the TM joints. But the problems of the TM joints manifest in numerous craniofacial symptoms above and below the neck. Getting to the origin of a problem is the approach we take with every single patient.

In the next chapter, I'll discuss how millions of people in the United States suffer from these TM joint problems, and many of them go undiagnosed.

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7 Olmos, Steven, et al., "The Effect of Condyle Fossa Relationships on Head Posture," *The Journal of Craniomandibular Practice* 23, no. 1 (January 2005): 48–52.