atients in pain can rejoice. In his new practice (see box), Raleigh Dentist Dr. James R. Harold continues to bring years of training and treatment of

TMJD, vertigo, and sleep apnea to scores of patients who need specialized care.

"It's only in recent years that we have been able to effectively make the connection with the often debilitating pain that exists in these different related conditions," the doctor notes.

In his consultation room, he clicks and enlarges an image on his computer monitor of a blonde, attractive woman, blue eyes, probably in her early thirties. There's the hint of a smile, with her mouth slightly open.

"Notice anything in particular about her mouth and jaw?" he asks. "See how her jaw is tilted to the right. And she's actually using her tongue as an orthotic. I asked her if she noticed anything unusual about this photo, and she said no. But a picture really is worth a thousand words—and there's a lot to see here. Look at the circles under her eyes. She's not sleeping well. Her teeth don't come together in the back of her mouth. She is badly out of balance—and she has many symptoms—a lot of pain—that make that point."

This patient, it turns out, has TMJD—temporomandibular joint dysfunction. In the past decade, Dr. Harold has steadily gained a regional and national reputation as a wizard in successfully treating the condition which, quite honestly, is the bane of many practitioners.

Millions of people go through life unaware that faulty functioning of their jaws may be a major cause of many of their aches and pains, especially of the face, jaw, neck, shoulders, and back, explains Dr. Harold. Janet Stone, a patient who lives in Cary, was one of them. She sought relief in many quarters before turning to Dr. Harold—which was, in fact, a good decision.

Few of Dr. Harold's patients know that he has completed more than 1,000 hours of special training in the treatment of TMJD and is a national lecturer on the topic to other dentists.

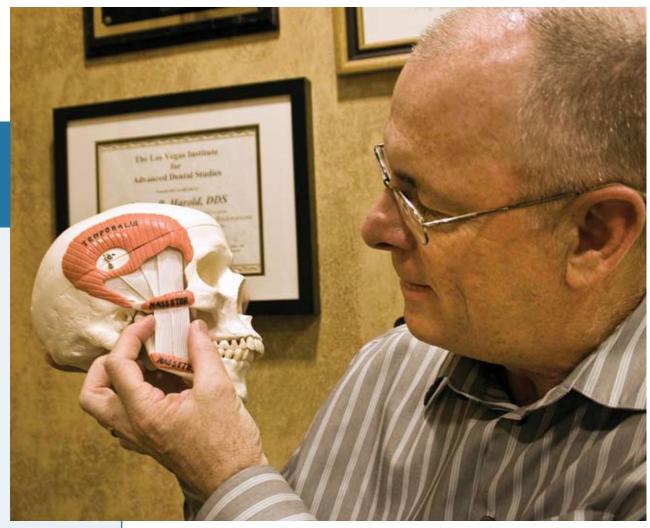
"I've come to understand, through direct experience, that patients with many different types of problems are, after proper assessment, terrific candidates for neuromuscular treatment. We get excellent results in treating headaches, facial pain, worn, chipping, or cracked teeth, cracking or chipping of dental restorations, neck and shoulder pain, jaw pain, ear congestion, ringing in the ears, clicking or popping in the joints, clenching or bruxing, limited opening of the mouth, loose teeth, and even tingling in the fingers. Janet Stone was a clencher who had many of these symptoms."

Often, he finds, "the basic problem is simply a lack of harmony and balance between the joint, the muscles, and nerves, and it is thus ideally suited for neuromuscular treatment."

DR. HAROLD ESTABLISHES NEW PRACTICE

Reflecting the increasing demand for his specialized services, Dr. Harold has established a new practice-TMJ and Facial Pain in the Carolinasin a new location (see contact box, next page). "Dr. Mike DesRosiers, a respected and well-established dentist in the area for many years, is now providing state-of-the-art dental care to patients of North Carolina Center for Aesthetic Dentistry-my former practice"-Dr. Harold notes, "and we are sharing office space at 700 Exposition Place.

"For more than a decade, my interest and expertise in neuromuscular dentistry, treating such conditions as TMJD, vertigo, and sleep apnea, has occupied more of my time and commitment. I'm grateful to now have the opportunity to focus entirely on helping patients who suffer with these difficult issues."



Balancing muscles in the jaw is a key part of effectively treating TMJD.

Critical Balance Issues:

TMJ, Vertigo, Sleep Apnea

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A BELIEVER

Janet Stone is a patient who is now a believer. "I've gotten excellent results working with a chiropractor for relief of back pain, but he told me he simply couldn't help with the pain from my neck radiating down into my right shoulder," she notes.

"Fortunately, I had heard about Dr. Harold's work and I came in and completed a very thorough TMJD evaluation, which included a number of neuromuscular scans. The point was to find the optimal position of the jaw where the muscles are relaxed and at rest—a three-dimensional position in space—where there is balance and harmony between muscles, joints, and the closing pattern of the jaw. It's all intended to work together in a perfectly balanced and harmonious way.

"When all of that testing was done, Dr. Harold built a small, acrylic, customized orthotic. Its job was to keep my jaw in the ideal position that was identified in all of his testing. I wear it around the clock, 24 hours a day, except to eat. It was amazing how quickly I found relief for all of my pain problems."

VERTIGO

Linda Burns, 65, lives in New Hampshire. In 1980, she was in an auto accident that changed her life for years to come. "In the accident," she recalls, "I hit my head, my jaw popped out, and I twisted my neck, and soon thereafter I began to have intense vertigo attacks. I was dizzy all the time, and the attacks were frequent and amazingly intense. It got so I had to rely on my husband for everything. I spent my life out of balance.

"Looking for relief, I saw numerous chiropractors, at least five osteopaths, and tried acupuncture, physical therapy, an orthodontist, and a neurologist—and a dentist who made me a mouth splint. Medications helped very slightly.

"I had an old friend who lives in Raleigh. I started to go down there about nine years ago, to help him with his affairs. On one visit, I picked up a copy of *Health&Healing* and read about Dr. Harold. He sounded like someone who might be able to help me. I kept that article in my purse for three years, and just reading it made me feel better.

19



Dr. Harold shows a patient the acrylic orthotic designed to keep the muscles in her face in a stable, balanced position.

that when I lay down my oxygen level dropped. So I was put on oxygen at night, which helped immensely with my level of fatigue. I don't have sleep apnea; it's just that my oxygen saturation level drops when I lay down."

SLEEP APNEA

Sleep apnea is a related condition of great interest to Dr. Harold. There is, he says, an important link between your teeth, your jaw, and the quality of your sleep.

"Increasingly, we've found that putting people into a TMJD appliance—which brings their jaw down and forward—actually increases their ability to sleep because of the forward nature of the appliance. In some cases, the appliance alone makes the difference between restful and disturbed sleep.

"But in other cases, the appliance by itself is not enough. A significant number of the patients we see need a pull-forward appliance or a CPAP unit, applying constant air pressure to keep the airway open.



It's amazing what a smile will reveal if you know what to look for—and Dr. Harold is an acknowledged expert in discerning problems that contribute to pain.

"Then my condition went from really bad to much worse. I had swelling in my temples and my eyes became extremely sensitive. Bright lights or traffic became quite debilitating. So with my husband I flew to Raleigh and finally made an appointment to see Dr. Harold.

"That by itself was an amazing experience. Just talking to him for the very first time brought a great sense of relief. He understood what I was experiencing, and was able to explain exactly what was going on and why my temples were swollen. He showed me a model of the muscles that are around the ear, and how one of them goes down into the ear—and when that tightens up, it triggers a vertigo attack."

The next step, after extensive testing, was creation of an acrylic orthotic to place and hold the patient's jaw in a stable, balanced position. "I noticed a difference right away," she reports. "My mouth and jaw felt stable. Within a few weeks I started to sleep through the night, much more soundly. The first thing Dr. Harold did, by the way, was send me for a sleep test, which showed

"At this point, we screen all of our TMJD patients and ask these patients to consider having a professional sleep study when it seems well-advised. Severe sleep apnea is a life-threatening health problem that deserves immediate attention, and it is related to a great many other serious health problems such as heart disease, Type II diabetes, and acid reflux.

"Some people with sleep apnea are roused from sleep dozens of times during the night, sometimes gasping for air. The essence of the problem is that when folks with sleep apnea lie down to sleep, their lower jaw falls back and collapses the airway, sharply curbing the flow of oxygen to the lungs."

A RECENT PATIENT

Frank, an assumed name for a recent patient who came to Dr. Harold for a TMJD assessment, is a dramatic example of a patient in need of good quality sleep—and relief from sleep apnea.

Frank, who is 60, is 5'7" and weighs a hefty 275 pounds—and excess weight is often a trigger for sleep apnea, Dr. Harold notes. "He had a range of issues that

are emblematic of a TMJD patient, including headaches, shoulder pain, ear pain, facial pain, and popping and clicking. He's had sinus surgery, that was not successful in relieving congestion, has numbness in his left eye and reports that he doesn't sleep well, and he snores.

"He had been recommended for a sleep study, but failed to comply. So I repeated the request: a sleep study would be the first step in the evaluation of TMJD. Five years ago I would have thought of him only as a TMJD patient; but no longer. The sleep apnea issue trumps all other concerns.

"Now Frank claims we've saved his life—and that may be true. He is wearing a sleep appliance that is keeping his airwave open while he sleeps, and he's a different person. This has been a profound quality of life issue for him. His sleep study showed a serious problem. He was roused from sleep 114 times in an hour. His apnea hypoxia index was 114—and anything over 30 is considered severe."

Prospective TMJD patients with unusual symptoms fueled Dr. Harold's interest in identifying sleep apnea whenever it exists. "At times," he says, "there were aspects of a case that simply didn't make sense to me, in the context of TMJD symptoms. At times people would wake up with severe neck pain, for example, and severe temporal headaches. My question: what were they doing in terms of their bite that would cause such problems? Was it related to the bite appliance they were wearing?

"What we now understand is that some people who have undiagnosed sleep apnea position their lower jaw forward while they are sleeping, in an effort to open their airway up. It's a position that often leads to cervical neck problems. And the temporal headaches are often not related to muscular discomfort, but specifically to the apneic event. If a patient isn't getting a sufficient amount of oxygen in their blood, their levels of CO2 rise and that causes really severe headaches.

"And now, routinely," he notes, "we look at all the possible red flags with our TMJD patients, including scalloping of the tongue, often related to pushing the lower jaw and the tongue forward in order to open the airway, which results in an irregular border of the tongue—which can also be caused by having a small lower jaw, which also restricts airflow.

"Further, when people struggle to sleep or they struggle in their sleep to get adequate oxygen, it induces the 'flight or fight' impulse that releases cortisol in the body. That, in turn, affects their whole glucose and glycogen system.

"Some of these patients now have Type II diabetes or significant weight gain, even though they are active, because their glucose metabolism is out of whack. Our task is to help patients engage in a comprehensive screening process that clearly indicates the nature of the problem. When we isolate the fact that a patient truly is suffering with TMJD, and only TMJD, we certainly are prepared to offer them a good deal of relief."

Dr. Harold was led to neuromuscular dentistry through personal experience. "TMJD and related conditions are not uncommon—far from it. Years ago, I coped with ear pain and vertigo, so I set out to discover the cause of the problem. Otherwise, I probably would never have gone down this path."

For more information about neuromuscular dentistry, contact:

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