

CASE STUDY: AUG 2026

Finding the Root Cause of Chronic Facial Pain: How a Custom Night Guard Ended Years of Sinus-Like Pain and Disrupted Sleep

Based on patient interview conducted by Aresso Health, on the connection between nocturnal bruxism, the TMJ articular disc, and everyday facial pain

AT A GLANCE

PATIENT

Long-term patient who worked with her dentist for over a decade on grinding-related symptoms

ROOT CAUSE IDENTIFIED

Nocturnal teeth grinding (bruxism) linked to a displaced or deformed TMJ articular disc

PRESENTING SYMPTOMS

Recurring sinus-like facial pain, ear discomfort, and jaw tightness, initially mistaken for sinus infections

OUTCOME WITH THE ASESSO GUARD

Elimination of morning pain, no more nighttime pain relievers, and consistently better sleep

1. A Familiar but Misdiagnosed Pattern

For years, the patient in this case study experienced a recurring cluster of symptoms: pain across the front of her head, discomfort radiating into her ears, and persistent jaw tightness. She attributed it, reasonably, to chronic sinus infections — a common misread, since the pain sits in almost exactly the same location.

It wasn't until she began working with Dr. William Cliff (of Aresso Health) that she was told that the symptoms were connected to something else: nighttime teeth grinding, or bruxism. Over more than a decade she moved through four different grinding devices — from an initial in-office appliance to a custom scanned device — each attempting to manage the same underlying issue with varying degrees of success. A generic, off-the-shelf mouth guard she'd tried years earlier had done almost nothing.

"I just thought I kept getting sinus infections. Nobody had connected it to grinding until my dentist brought it up."

This pattern is one Aresso Health hears often: patients move through general practitioners, ENTs, and over-the-counter pain relievers for months or years before anyone identifies the mechanical cause sitting in the jaw joint itself. In this patient's case, a doctor at an urgent care visit — unrelated to any dental complaint — was ultimately the one who flagged teeth grinding as the likely source of her symptoms. In most cases, even when the problem is diagnosed to Bruxism, improperly designed night guards only give the perception of addressing the symptoms but actually don't.

2. The Root Cause: A Displaced Articular Disc

The temporomandibular joint (TMJ) connects the lower jaw (the mandible) to the skull, just in front of each ear. Between the rounded top of the jaw bone (the condyle) and the skull sits a small piece of cartilage called the **articular disc** — a cushion that lets the jaw open, close, and slide smoothly.

When that disc becomes displaced or deformed, the joint no longer glides the way it should. This is the mechanism behind Asesso Health's approach to bruxism: the jaw, outside of conscious control, shifts and grinds at night as it works to reposition the disc. That repeated grinding motion is what tenses the masseter and temporalis muscles — the two major jaw-closing muscles — and produces the sinus-like facial pain, jaw tightness, and ear discomfort patients report during the day.



Figure 1. The temporomandibular joint (TMJ), located just in front of the ear where the jaw hinges to the skull — the site of the articular disc discussed above.

3. How the Asesso Guard Addresses the Mechanism, Not Just the Symptom

Asesso Health guards are targeted towards treating muscles, not just protect the teeth. Many grinding devices simply place a barrier between the upper and lower teeth. The Asesso Guard is designed around the joint mechanics described above: it separates the teeth and opens the bite just enough to let the masseter and temporalis muscles relax fully, guiding the jaw into its most natural, rested position.

By keeping the jaw from closing into its habitual bite at night, the guard removes the physical trigger for the grinding motion — the jaw no longer has the leverage or the need to hunt for the displaced disc. For this patient, the result was consistent: with the guard in, the nighttime grinding and the pain that followed it simply didn't happen.

4. Results: Sleep, Pain, and a Natural Experiment

The patient reported that once she began wearing her guard consistently, her sleep quality improved noticeably. She stopped waking up with facial pain and mouth discomfort, and she no longer needed nighttime pain relievers — a routine that had become habitual before starting the guard.

- No more waking up with head, jaw, or ear pain
- Discontinued nighttime pain relievers previously used to manage symptoms
- Noticeably better, more consistent sleep, especially after high-stress days when grinding tended to be worse

The most compelling evidence came unintentionally. When the patient began Invisalign treatment, she had to stop wearing her Asesso Guard — and her original symptoms returned. This on/off pattern, occurring naturally rather than as a designed test, offers a clear before-and-after signal that the guard, not some unrelated lifestyle change, was responsible for her improvement. Asesso Health plans to follow up once her Invisalign treatment concludes to support her in resuming guard use.

“When I couldn't wear it anymore because of Invisalign, the pain came right back. That's when I really noticed how much it had been helping.”

5. What This Patient Values: Simplicity

Asesso Health's guard is available with an optional companion app and sensor data on grinding activity. This patient, however, was clear that she had little interest in tracking detailed metrics — she valued the guard for the relief it provided, not the data it generated. She noted that she stopped using a separate sleep-tracking sensor patch due to skin irritation from its adhesive, a piece of feedback the Asesso team has now implemented by using softer adhesive alternatives for sensitive skins.

Her perspective points to something important for how Asesso Health talks about the product: different patients want different things. Some — often younger or more tech-oriented users — want the full picture of their nightly grinding activity. Others simply want the pain to stop, with as little added complexity as possible. She suggested that data collection matters most when there's a specific, unresolved medical issue that a doctor needs to investigate — otherwise, simplicity wins.

6. Why This Matters: Closing the Awareness Gap

Perhaps the most important insight from this patient's experience isn't clinical — it's about awareness. She lived with facial pain for years, attributing it to the wrong cause, until a clinician happened to make the connection to grinding. Her own recommendation for reaching people like her: education first, delivered through the medical and dental professionals patients already trust, paired with inbound content that helps people self-identify the symptoms of bruxism before they've ever heard the word.

That is the gap this case study is meant to help close: the space between someone experiencing recurring “sinus” pain, jaw tightness, or unexplained ear discomfort, and knowing that a jaw-joint issue — and a well-designed guard — may be the answer.

Living With Similar Symptoms?

If recurring facial pain, ear discomfort, jaw tightness, headaches or migraines or restless sleep sounds familiar, it may be worth talking to your dentist about nighttime teeth grinding and the Asesso Health solution. Learn more about the Asesso Guard and how it's designed to address the root cause at assessohealth.com.

This case study reflects one patient's individual experience, anonymized at her request, and is intended for educational purposes. It is not a substitute for professional medical or dental advice. Individual results may vary; consult a dentist or physician for diagnosis and treatment of jaw pain, headaches, or sleep-related symptoms.