



# Traumatic Trigeminal Neuropathy Secondary to Excessive Mouthpiece Pressure in a Trumpet Player

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## Case Description

A 20-year-old college trumpet major with 3-month history of bilateral upper lip numbness and declining trumpet-playing ability presented to our clinic. He sustained upper lip pain and numbness after playing a loud, high note in a marching band performance. Pain subsided, but numbness persisted. He was unable to sense temperature of liquids when he drank. He tried ice, ibuprofen, and altered his embouchure without benefit.

## Examination and Treatment

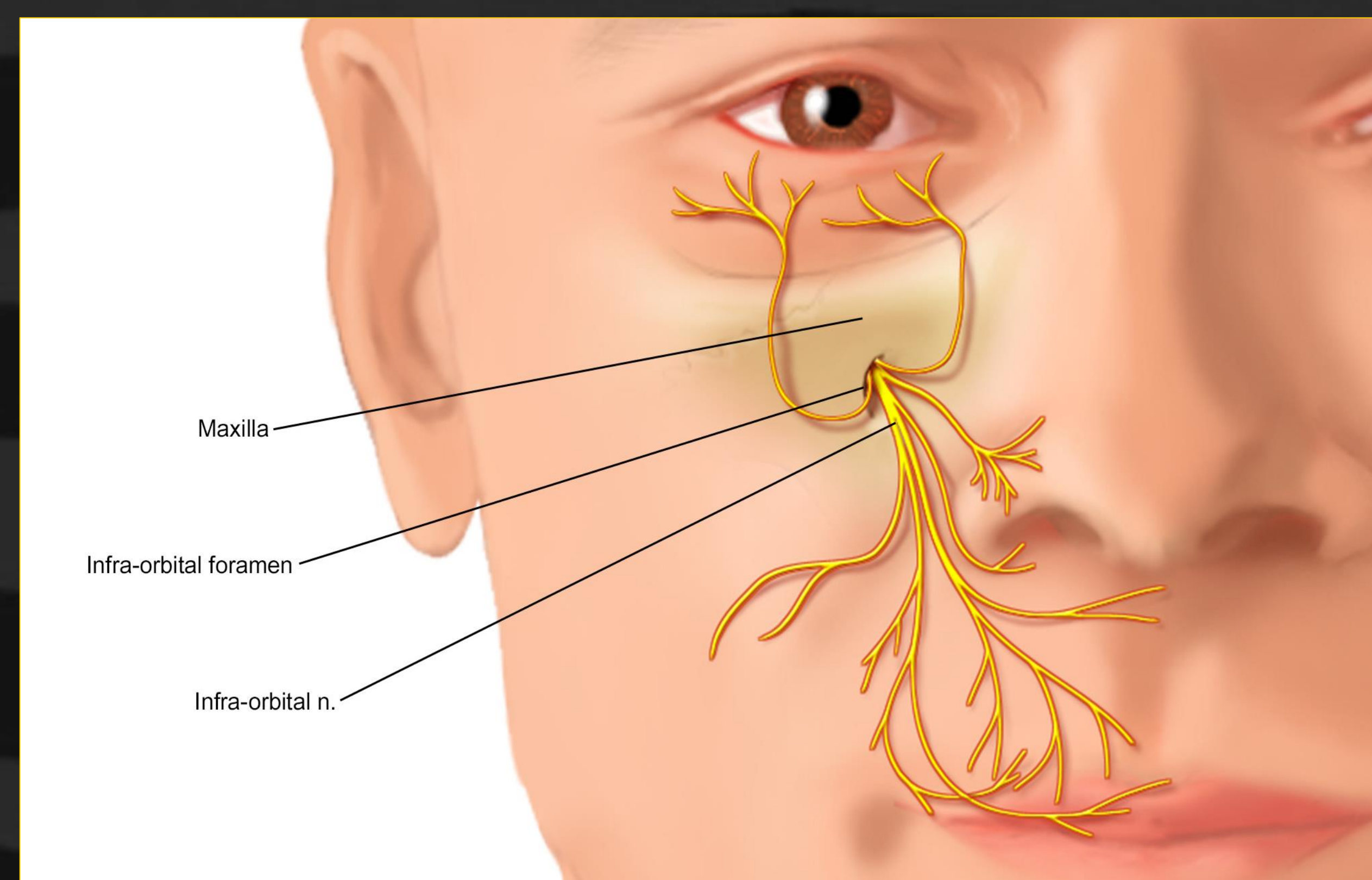
There was absent sensation to light touch and pinprick of left upper lip and diminished sensation of right upper lip. The sensory deficits followed his trumpet mouthpiece contour. Purplish-blue discoloration of labial mucosa was observed. There was no lip swelling or deformity of lip muscles or teeth. He was unable to whistle.

Exam of patient playing his trumpet revealed airy tone quality and range limited to within the musical staff.

We diagnosed the patient with compression injury of bilateral infraorbital nerves. Treatment included complete rest from trumpet playing for 6 weeks followed by a tailored return-to-play regimen of long tones, scales, and lip slurs while playing in front of a mirror.



Patient buzzing with an embouchure visualizer, demonstrating mouthpiece placement and lip mechanics used when playing his instrument



Graphic demonstrating the infraorbital nerve, a branch of the trigeminal nerve  
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## Results

Lip sensation returned after 5 weeks, and trumpet playing improved within days of returning to play. He could sense warm and cold liquids.

Repeat exam revealed intact and symmetric sensation to light touch and pinprick in bilateral upper lip and return of the ability to whistle. Oral mucosa discoloration had resolved.

Trumpet-playing exam revealed improved tone quality and increased range.

## Discussion

Brass players subject their lips to mouthpiece pressure forces on the lips whenever they play. High notes and loud volume require greater lip strength to produce the sound. Some players compensate lack of lip muscle strength by using more pressure on the lips. That increased pressure may lead to swelling and, in rare cases, nerve damage.

## Conclusion

Musicians sustain injuries unique to that population. An extensive understanding of player mechanics and performance requirements are helpful in successful diagnosis and treatment. Some providers may feel more comfortable referring patients to a performing arts medicine specialist.