

## Clinical Image

# Brainstem Auditory Evoked Potentials in a Patient with Bell's Palsy

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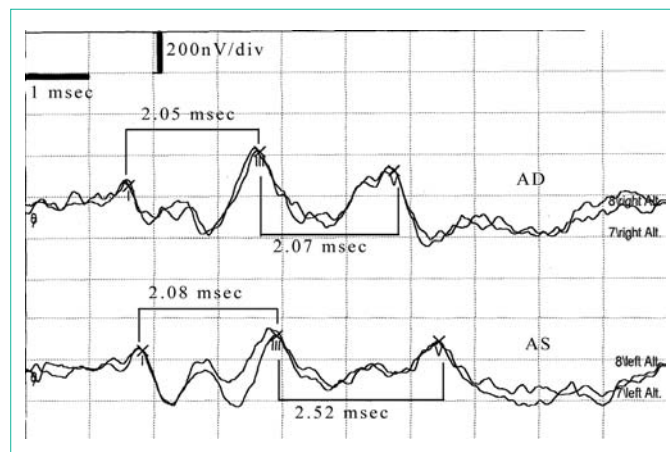
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Bell's palsy is a dysfunction of the facial nerve as a result of a sudden inflammatory reaction most commonly after a viral infection. Brainstem dysfunction has been reported as frequent finding in cases of Bell's palsy.

The brainstem dysfunction can be demonstrated by brainstem auditory evoked potentials (BAEP) recordings.

The image displays BAEP's of a patient with Bell's palsy. The patient presented with a left Bell's palsy. I – III inter – peak latencies from both ears are normal. In contrast, III – V inter – peak latency from the left ear is prolonged.



A possible explanation for the absence of signs of cochlear nerve involvement may be that viruses travel within the axon of the facial nerve but they do not seem to trespass its limits. After a reactivation, a retrograde axonal transport can occur and the viruses reach CNS neurons where they can spread into other axons and neurons.