

Bilateral brachial plexus injury

Acute bilateral [brachial plexus injury](#) is rare and usually a result of [traction injury](#). Immediate operative intervention is reserved for rare cases of ongoing compression of the plexus; the role for acute decompression of the brachial plexus secondary to compartment syndrome has not been previously described.

Case reports

In a report, of the [University of Pittsburgh Medical Center](#), Tonetti et al. describe the technique and role for urgent brachial plexus decompression.

A 32-yr-old man presented with acute complete bilateral brachial plexus [palsy](#) due to focal [rhabdomyolysis](#) and brachial plexus compression after a night of excess [alcohol](#) and [methadone](#) ingestion. He had complete loss of motor and sensory function from C5 to T1, with the exception of partial sensory sparing of the C5 dermatome. Magnetic resonance imaging demonstrated diffuse muscular edema of the supraclavicular and infraclavicular fossae in addition to the pectoralis muscles and the deltoids bilaterally. He underwent urgent surgical decompression of his supraclavicular and infraclavicular fossae with fasciotomies of the pectoral muscles and the anterior deltoids, allowing direct visualization and decompression of the entire brachial plexus resulting in a near-complete functional recovery.

Neurosurgeons should include brachial plexus compression due to compartment syndrome in the differential diagnosis of patients with acute [upper extremity paresis](#), particularly when associated with prolonged immobilization and/or substance abuse. Prompt surgical decompression should be performed in these patients if imaging and laboratory data suggest compartment syndrome and resultant neurological deficit ¹⁾.

¹⁾

Tonetti DA, Tarkin IS, Bandi K, Moossy JJ. Complete Bilateral Brachial Plexus Injury from Rhabdomyolysis and Compartment Syndrome: Surgical Case Report. Oper Neurosurg (Hagerstown). 2018 Oct 17. doi: 10.1093/ons/opy289. [Epub ahead of print] PubMed PMID: 30335171.

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