

**“Found Down” Compartment Syndrome:
Experience From the Front Lines of the Opioid Epidemic**

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Purpose: With the worsening of the opioid epidemic, the incidence of patients who are “found down” from drug overdose is increasing. Some of these patients, after being down for a prolonged period, develop muscle necrosis, rhabdomyolysis, and elevated compartment pressures in a unique circumstance of compartment syndrome. Although this frequently contrasts sharply with the presentation of acute traumatic compartment syndrome, there exist no treatment guidelines beyond those developed for acute traumatic compartment syndrome. The purpose of this study is to summarize our experience at a trauma center in a region with a high endemic rate of opiate abuse, to describe the outcomes of patients with “found down” compartment syndrome.

Methods: We performed a retrospective chart review to identify patients who were found unconscious due to overdose where orthopaedics was involved to evaluate for compartment syndrome. Patients were treated with fasciotomy or with observation at the discretion of the surgeon. Data regarding initial presentation, intubation, ICU admission, dialysis, repeat surgeries, and laboratory values were extracted.

Results: Over 12 years, we identified 30 “found down” patients who had an examination concerning for compartment syndrome, 25 of whom were taken for emergent fasciotomy. Fasciotomy patients required an average of 4.2 operations and had an infection rate of 20% and amputation rate of 12%. Lactate, creatine phosphokinase, and creatinine levels were typically elevated at time of presentation, but did not correspond to muscle viability or return of function. At initial debridement, 56% of patients had muscle that appeared nonviable, although muscle function returned in 28% of those patients. Four patients had no function at all on initial examination, and none had meaningful return of function at final follow-up. Of 10 patients with partial neurological deficits at time of presentation, half had some improvement in ultimate function

Conclusion: Patients who are “found down” from overdoses with crush injuries have a high surgical complication rate and poor recovery of function. Limited data suggests that those with absent function on presentation are unlikely to gain function after fasciotomy, and the risk/benefit ratio of fasciotomy in this patient population may be different than for traumatic compartment syndrome.