



Background and Significance

- Snowblowers are a common source of morbidity in states with snowfall
- Despite this observation, there is little documented on specific mechanisms of injury or long-term patient outcomes

Research Aims

1. Identify how these injuries occur
 2. Better characterize the types of injuries inflicted by snowblowers
 3. Analyze patient outcomes to identify what symptoms, if any, patients are having as a result of this injury
- Our hypothesis is that these injuries result in a high number of amputations resulting in lasting disability for these patients

Methods

Patients with hand injuries from snowblowers seen by orthopedic hand team at a single tertiary care center from 2010-2019

Excluded:

- Other mechanisms of injury
- Patients < 18 years old

n = 52. Retrospective chart review conducted to identify mechanism, injuries, treatment, and follow-up

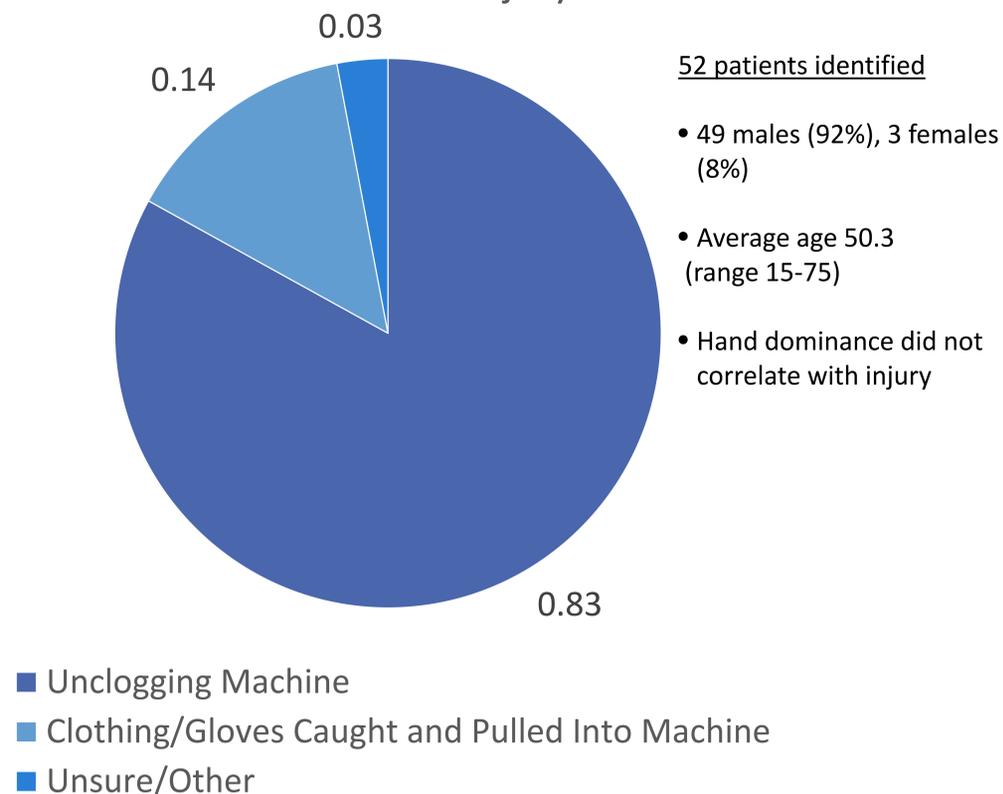
Contacted for phone interview

- Details of event re-verified
- QuickDASH

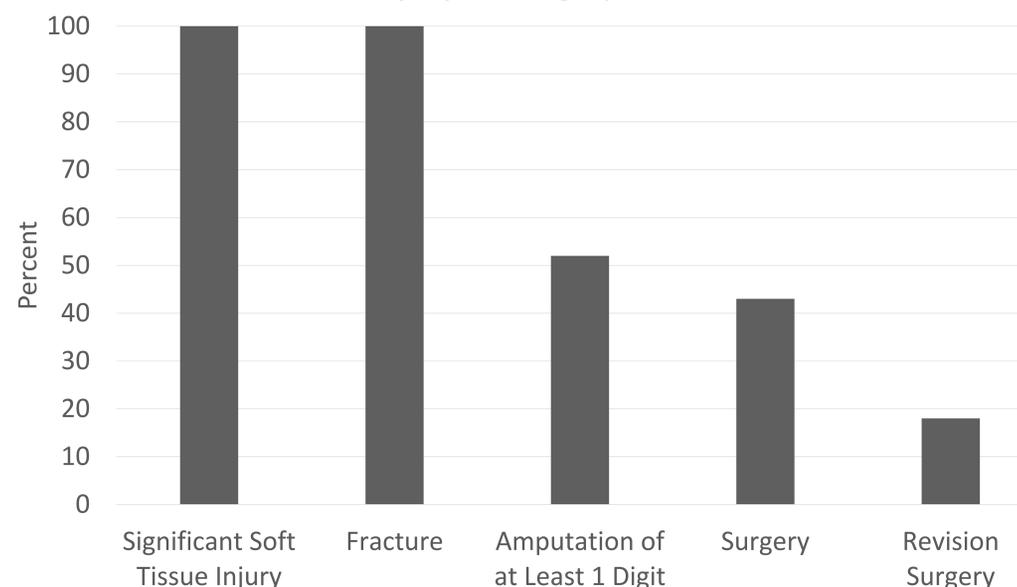
n = 8. Prospective cohort, interviews conducted to identify mechanism, injury, treatment, and long-term disability

Results

Mechanism of Injury

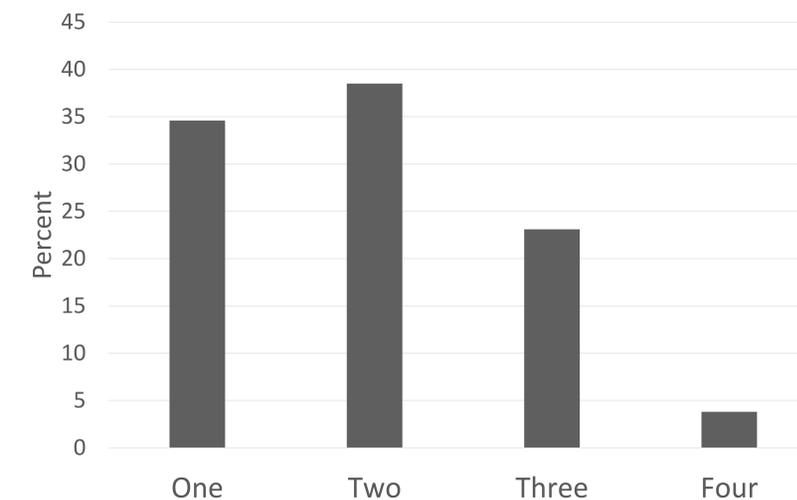


Injury Demographics



Results

Number of Fingers Injured



Interview Results

- All patients reported mild to severe limitations
- 2 patients scored in 'poor category' (QuickDASH < 35)
- Most common reported issue was moderate to severe tingling (88%) or pain (63%)
- All patients reported snowblower was on
- All patients reported snowblower clogged/wet snow

Conclusions

- In our small cohort, the two main ways people are injured are attempting to unclog the machine or getting gloves/clothing stuck in rotors
- Significant soft tissue injury and fractures were reported in 100% of cases, with a high rate (52%) of at least one amputated finger
- Long term morbidity even years after injury, most commonly tingling or pain, raises concern of continued morbidity for other patient populations
- Future studies needed to see how we can better serve those with finger amputations