



# Research Week 2020

## Retrospective Analysis of Mild Traumatic Brain Injuries at Oregon Health Science University

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### Keywords

Concussion, mTBI, balance, retrospective

### Abstract

Mild traumatic brain injury (mTBI) is a major public health concern and patterns of referral and time from injury to clinic visit is not well understood. The purpose of this study is to describe the patient demographics and time to clinical care in patients with an mTBI seeking care at Oregon Health Science University (OHSU). This study, a retrospective chart review, examined records from 2016-2018. Inclusion was a diagnosis of mTBI and people with hospitalization, skull fracture and positive neuro-imaging were excluded. Data extraction included age, gender, county of residence, time from injury to OHSU visit, cause of mTBI, history of mTBI, total previous mTBI, loss of consciousness, whether imaging performed, and total symptom score at time of clinical care (Sport Concussion Assessment Tool [SCAT]). Across these 2 years, a total of 3,870 people were seen in the OHSU for an mTBI. People were between 3-89 years old (median age 31) and 51.4% female. 71% came from the Portland Metro area, specifically Multnomah county (36%), Clackamas county (12%), Washington county (19%), and Clark County (4%). Of these 3,870 people, 1,010 were seen by a sports medicine provider. This subset of patients had a mean time from injury of 143 days and 52% of these people received CT scan. The most common mechanism of injury was motor vehicle accident (37%) and sporting injury (32%). A history of prior mTBI was present in 49% of people with a median of 2 prior occurrences. Lastly, these patients reported an average symptom score of 46 out of a possible 132. Understanding the pattern of patients being treated at OHSU can help maximize clinical care for this complex patient population. We plan to further examine points of entry into OHSU including which departments first see these patients and what percent are referred to rehabilitation.