

## **The influence of the COVID-19 pandemic on the prevalence of severe injuries in The Netherlands**

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Our goal was to study the influence of COVID-19 measures and coinciding changes in activities on the prevalence of severe injuries treated at the Emergency Departments (EDs) in The Netherlands. We performed a retrospective observational study with data from the Dutch Injury Surveillance System (DISS) and compared prevalences of ED-visits during lockdown period (March 16 - May 10 2020) with prevalences in the same period in 2019. We also compared a period from May 11 to July 5 2020, in which the measures were relaxed, with the same period in 2019. To exclude a possible effect of avoiding hospitals and EDs due to COVID-19, we included only treatments for severe injuries. The prevalence of ED-visits due to severe injuries was 27% lower during lockdown than during the same period in 2019 (6755 vs. 4902,  $p < 0,05$ ). This decrease was seen among all types of injuries and all age categories, but was largest within sports injuries and among 10-19 year old persons (-55%). Opposite to those decreases we saw increases in specific types of injuries such as doing home maintenance work (+31%), and skeelering or skating. (+233%). Among 0-11 year olds, the prevalence of injuries due to trampoline use increased by 68%. During the relaxation period regarding COVID-19 measures, the prevalence of severe injuries increased by 19% compared to lockdown, but was still 11% lower than compared with the same period in 2019. We concluded that changes in activities due to COVID-19 measures during lockdown have led to changes in the number of severe injuries treated at the ED. Variations in prevalence primarily seem to relate to variations in sports and traffic participation, and stay in and around the home.