

## Abstract

With the increase in popularity of trampolines among children, there is an increase in the number of injuries associated with jumping on trampolines among children, not only in the Czech Republic, but all over the world. Epidemiology is a tool that is used in connection with the frequency of occurrence of this phenomenon to describe and to create statistical data that allow the given trend to be monitored over a certain period, to be compared with other countries and to create expectations for the future concerning this trend.

As part of the experimental part, a retrospective mapping of children's injuries related to the trampoline was carried out for the years 2022 and 2023. Relevant information for the creation of epidemiological data was extracted from the database of the Faculty Hospital in Motol - type of injury, age and gender of the child, type and severity of trauma, treatment process, duration of treatment and possible complications. Based on this information, a questionnaire was created, which was then filled out by the parents of the patients, and thus any missing information was added.

Finally, there was also the mapping of statistical data and the creation of epidemiological indicators related to the therapy carried out in children's patients after a trampoline accident, two case reports of patients hospitalized at the Faculty Hospital in Motol in connection with a trampoline accident were presented.

It was shown that most patients admitted with a trampoline injury were in the age group up to and including 6 years, with the gender of the child playing no important factor in the injury. Falling, bad impact and sprains appeared to be the most common causes of trampoline injuries. Injuries most often occurred on the trampoline surface itself, in the presence of two or more people on the jumping surface. The most common type of injury was fractures, followed by contusions or sprains, mostly injuries to the lower limbs, less injuries to the upper limbs and the axial organ. In most cases, these injuries were treated conservatively, only in about 5% of operative treatment was performed. Most injuries occurred in May, in 2022 there were more injuries in the jump centre environment prevailed, on the contrary in 2023, most injuries happened on trampolines at home.