

## **Choking among Babies, Toddlers and Children with Special Needs: A Review of Mechanisms, Implications, Incidence, and Recommendations of Professional Prevention Guidelines**

**Authors :** Ella Abaev, Shany Segal, Miri Gabay

**Abstract :** Background: Choking is a blockage of airways that prevents efficient breathing and air flow to the lungs. Choking may be partial or full and is an emergency situation. Complete or prolonged choking leads to apnea, lack of oxygen in the tissues of the body and brain, and can cause death. There are three mechanisms of choking: obstruction of internal respiratory tracts by food or object aspiration, any material that blocks or covers external air passages, external pressure on the neck or trapping between objects. Children's airways are narrower than that of adults and therefore the risk of choking is greater, due to the aspiration of food and other foreign bodies into the lungs. In the Child Development Center at Safra Children's Hospital, Tel Hashomer in Israel are treated infants, toddlers, and children aged 0-18 years with various developmental disabilities. Due to the increase in reports of 'almost an event' of choking in the past year and the serious consequences of choking event, it was decided to give an emphasis to the issue. Incidence and methods: The number of reports of 'almost an event' or a choking event was examined at the center during the years 2013-2018 and a thorough research work was conducted on the subject in order to build a prevention program. Findings: Between 2013 and 2018 the center reported about ten cases of 'almost choking events'. In the middle of 2018 alone three cases of 'almost an event' were reported. Objective: Providing knowledge leads to awareness raise, change of perception, change in behavior and prevention. The center employs more than 130 staff members from various sectors so that it is the work of multi-professional teams to promote the quality and safety of the treatment. The familiarity of the staff with risk factors, prevention guidelines, identification of choking signs, and treatment are most important and significant in determining the outcome of a choking event. Conclusions and recommendations: After in-depth research work was carried out in cooperation with the Risk Management Unit on the subject of choking, which include a description of the definitions, mechanisms, risk factors, treatment methods and extensive recommendations for prevention (e.g. using treatment and stimulation accessories with standards association stamps and adjustment of the type of food and the way it is served to match to the child's age and the ability to swallow). The expected stages of development and emphasis on the population of children with special needs were taken into account. The research findings will be published by the staff and parents of the patients, professional publications, and lectures and there is an expectation to decrease the number of choking events in the next years.

**Keywords :** children with special needs, choking, educational system, prevention guidelines

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