

Background

- Sports injuries account for up to 40 percent of all dental injuries in children¹
- The AAPD encourages dentists to play an active role in educating the public on the use of mouthguards for prevention of dental injuries²
- Studies show that children in the age range from seven to 11 years of age are more susceptible to sports-related injuries than any other age group³
- There are three different types of mouthguards available for athletes to wear⁴:
 - ◆ Custom-made mouthguard
 - ◆ Boil-and-bite mouthguard
 - ◆ Stock mouthguard
- Several studies have emphasized the benefits of mouthguards for the prevention of dental injuries, yet many young athletes still choose not to use mouthguards⁵

Objective

The purpose of this study is to investigate if athletes wear mouthguards and identify specific factors that influence the use of mouthguards.

Materials & Methods

- IRB approval was obtained
- A 15-question written survey was administered to the parents/guardians of school-aged children who reported participating in sports.
- The study population consisted of 93 parent/child dyads
 - ◆ 60 males (66%)
 - ◆ 33 females (34%)
- Ages ranged from 6-17 years old
- Average age of 11 years old
- Survey questions included the sport(s) the child participated in, if a mouthguard was worn, and specific reasons that impacted if a mouthguard was utilized or not.
- Specific factors impacting mouthguard use included cost, social pressure, comfort, performance, coach requirement, and dentist recommended, as well as the level of importance of each.

Results

- The sport with the highest reported use of mouthguards was football (81%), followed by wrestling (41%), basketball (16%), and soccer (11%).
- Parents/guardians ranked “required by coach” was the strongest factor in determining mouthguard use (73%).
- The second strongest factor was “recommended by dentist” at 70%.
- Eighty-eight percent strongly agreed/agreed “mouthguards play an important role in protecting against dental trauma injuries”.
- Eighty percent reported they are more likely to have their child wear a mouthguard after completing this survey.
- Bivariate analysis was performed.
 - ◆ Odds ratio of 6.37
 - ◆ parents are roughly 6 times more likely to have their child wear a mouthguard if they’re male than if they’re female.

Table 1. Mouthguard Usage by Sport

Sport	Number of Children who Played the Respective Sport	Number of Children who Used Mouthguard in the Respective Sport
Football	36	30 (81%)
Wrestling	17	7 (41%)
Basketball	39	6 (16%)
Soccer	36	4 (11%)
Baseball	42	2 (5%)
Volleyball	17	0 (0%)
Tennis	3	0 (0%)



Table 2. Factors for not wearing mouthgard. (N = 93)

Cost	
Very important	22 (28%)
Somewhat important	22 (28%)
Not important	35 (44%)
Social pressures	
Very important	15 (20%)
Somewhat important	20 (26%)
Not important	41 (54%)
Speech and comfort	
Very important	40 (50%)
Somewhat important	22 (28%)
Not important	18 (23%)
Athletic performance	
Very important	33 (42%)
Somewhat important	23 (29%)
Not important	22 (28%)
Required by coach	
Very important	58 (73%)
Somewhat important	12 (15%)
Not important	9 (11%)
Reccomended by dentist	
Very important	51 (70%)
Somewhat important	15 (21%)
Not important	7 (9.6%)
Other	
Very important	1 (50%)
Somewhat important	1 (50%)

¹ n (%)

Conclusion

- Children are more likely to wear mouthguards in sports when it is required by the coach and/or recommended by a dentist.
- It is imperative to educate coaches and dentists on the use of mouthguards in school-aged children for the prevention of dental injuries.

Limitations

- Small sample population
- Survey completed by the parent

References

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Acknowledgements

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