



# Normative Balance Error Scoring System (BESS) results in the high school male athlete

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## OBJECTIVES

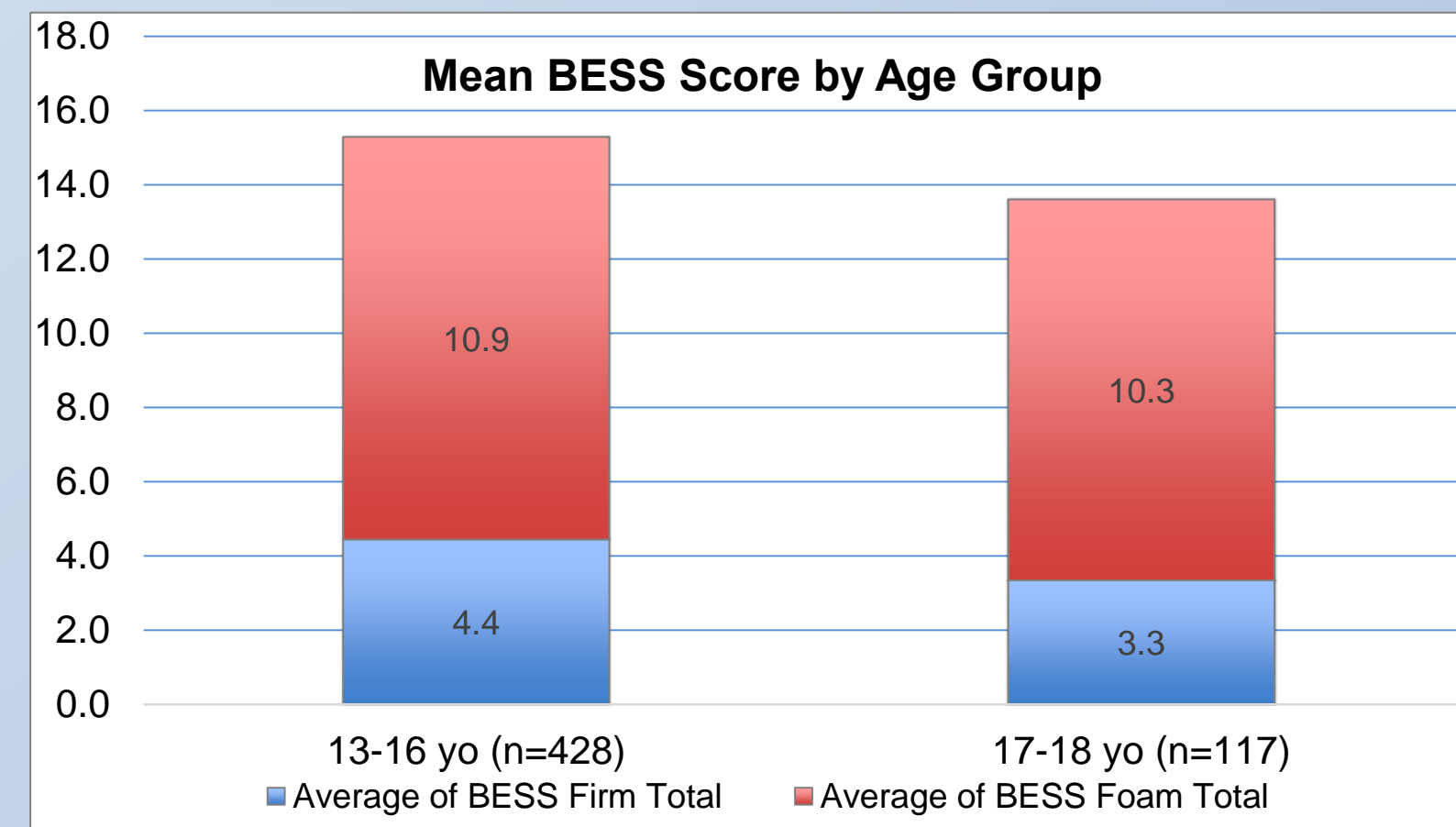
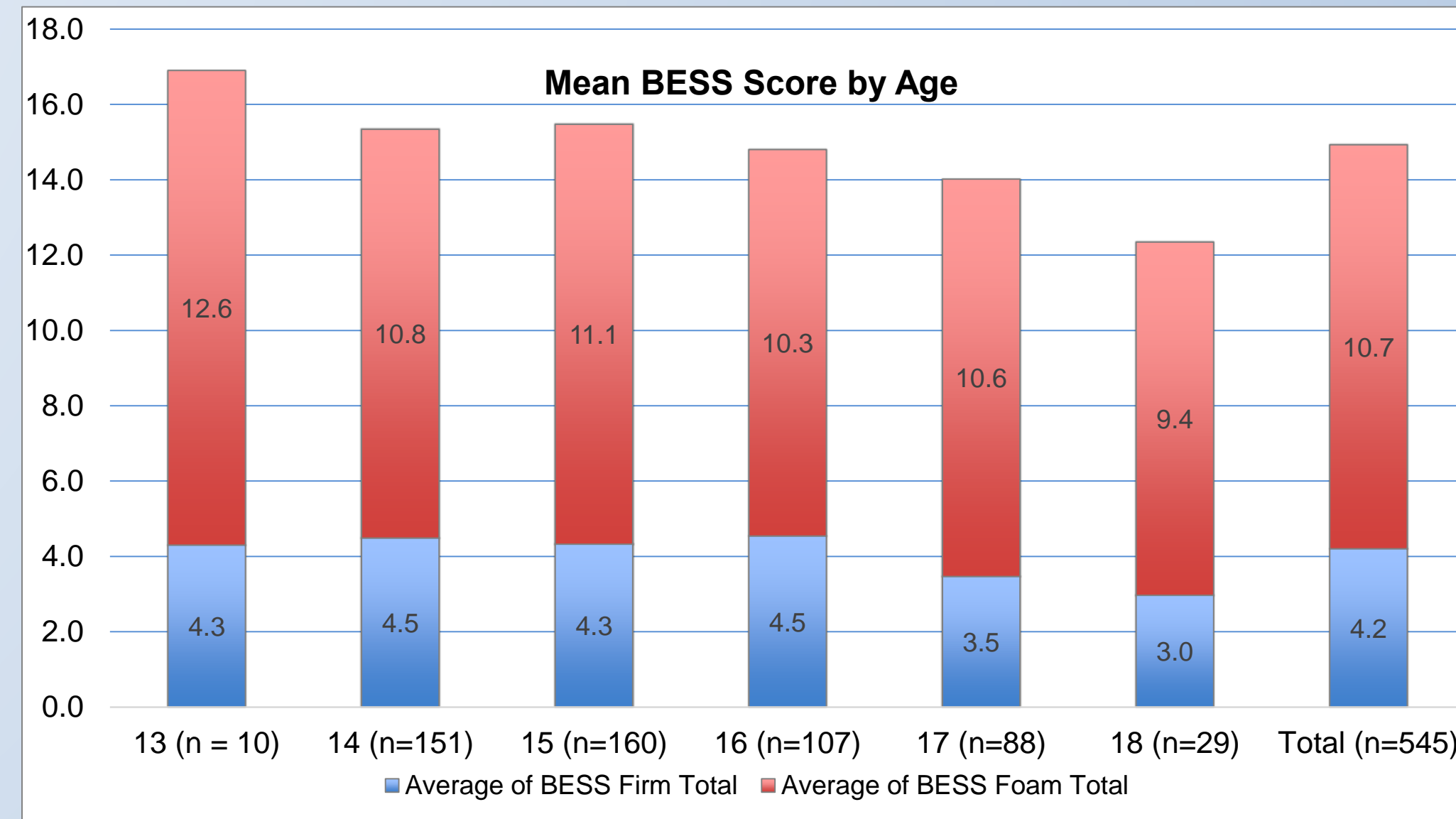
- The BESS has been shown to be a reliable tool in sideline assessment of balance, and is often used as an assessment tool for post-concussion balance.
- As same subject baseline comparison is not typically available, subject scoring is compared to normative data; however, this data is limited in the adolescent athlete.

## METHODS

- Data was collected through retrospective analysis of athlete BESS scores gathered as part of a preseason comprehensive baseline concussion program.
- Further analysis was done with student's t-test for comparison of subjects age 13-16 versus ages 17-18.

## SUBJECTS

- 545 male high school athletes tested prior to participation in contact sports of the fall, winter and spring seasons.
- Subjects were between 13-18 years old, mean age of subjects was 15.4 years +/- 1.2.



## RESULTS

- Mean total BESS score for the group as a whole was 14.9 +/- 6.4
  - Firm 4.2 +/-3.1
  - Foam 10.7 +/-4.3
- When BESS total results for ages 13-16 (mean=15.3 +/- 6.5, n= 428) are compared to ages 17-18 (mean =13.6 +/- 5.9, n=117) , a significant difference is noted (p=0.008).

## CONCLUSIONS and DISCUSSION

- The significant difference in performance of the younger versus older high school athlete is consistent with the ongoing vestibular system development in the younger group
- Further study may be warranted to assess the impact, not only age, but also of preferred sport on BESS performance.

## CONTACT INFORMATION

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