Effectiveness of Neck Strengthening Exercises on Reducing Brain Injury

Amia Gaines
Bowling Green State University, gamia@bgsu.edu

Andrea Cripps
Bowling Green State University, acripps@bgsu.edu

Follow this and additional works at: https://scholarworks.bgsu.edu/jsmahs

Part of the Biomechanics Commons, Exercise Science Commons, Motor Control Commons, Other Kinesiology Commons, Rehabilitation and Therapy Commons, Sports Medicine Commons, and the Sports Sciences Commons

Recommended Citation
DOI: https://doi.org/10.25035/jsmahs.03.01.12
Available at: https://scholarworks.bgsu.edu/jsmahs/vol3/iss1/12

This Undergraduate Student Abstract is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in Journal of Sports Medicine and Allied Health Sciences: Official Journal of the Ohio Athletic Trainers Association by an authorized editor of ScholarWorks@BGSU.
Effectiveness of Neck Strengthening Exercises on Reducing Brain Injury

Amia Gaines, Andrea E. Cripps, PhD, AT, ATC

School of Human Movement, Sport, and Leisure Studies, Bowling Green State University

CLINICAL SCENARIO
Mild traumatic brain injuries (mTBI), are serious health conditions affecting athletes. Research has begun to denote that there are detrimental long-term effects of suffering from concussions. Thus advancements to prevent concussions are imperative.

FOCUSED RESEARCH QUESTION
What is the impact of neck strengthening exercises on preventing or reducing the prevalence of concussions?

SUMMARY OF KEY FINDINGS
The literature was searched for research studies that investigated the effects of preventative treatment of patients with isotonic and isometric neck exercises in decreasing mTBIs in comparison to those who received no preventative treatment. The search returned three articles that met the inclusion criteria all of which were included (1 cohort study, 1 clinical review, and 1 descriptive laboratory study).

CLINICAL BOTTOM LINE
There is competing evidence on the effects of neck strength in decreasing mTBIs. Cervical resistance and stiffness due to increased musculature or cervical inflexibility seems to be the true judge of decreased results in mTBI severity.

REFERENCES

KEY WORDS: concussion, Mild-traumatic brain injury, preventative exercises, neck strength