

STUDY SITE



STUDY TEAM

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INCIDENCE OF MUSCLE CRAMPS IN HIGH SCHOOL FOOTBALL PLAYERS

Rutgers IRB approved (Pro2024001242)

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STUDY GOAL

Muscle cramps are among the most frustrating and debilitating ailments affecting American football players. While studies hypothesize the etiology of muscle cramps, with most focusing on electrolyte imbalances or neuromuscular fatigue, there is no clear consensus on their cause, which makes prevention challenging. The aim of this study was to describe the incidence of muscle cramps in the high school football population to better understand those at risk of suffering from muscle cramps and help guide preventative measures.

METHODS

Ten varsity high school football programs were followed throughout the 2024-25 season during home games. Data was collected during games including kickoff time, temperature, humidity, quarter in which the muscle cramp occurred, what year in school the player was, player height and weight, player primary and secondary positions, whether or not the player was a 2-way starter, and which muscle the cramp affected. This study was reviewed and approved by Rutgers IRB (Pro2024001242) prior to data collection.



PHASE II

Our goal is to expand our study statewide to capture a greater number of patients to validate the trends we saw in our cohort. We are looking for athletic trainers to help us accomplish this. Those who take part in our study will be acknowledged by name in the publication.

If you are interested in participating in our study, please scan the QR code below:



RESULTS

Number of cramps observed – 25

Cramps by quarter

- 2Q – 5 (20%)
- 3Q – 12 (48%)
- 4Q – 8 (32%)

Primary positions most affected

- Running back – 8 (32%)
- Wide receiver – 4 (16%)

Secondary position most affected

- Cornerback – 11 (44%)

Cramps in 2-way starters – 18 (72%)

Cramps by muscle group

- Calf – 23 (92%)
- Hamstring – 2 (8%)

