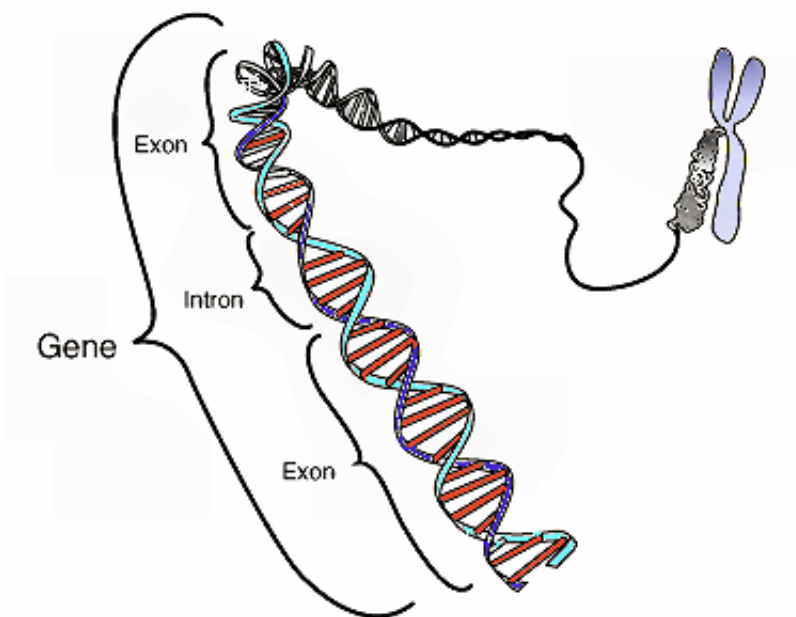


Gene variation in athletes might signify longer recovery following concussion

March 6 2016



This image shows the coding region in a segment of eukaryotic DNA. Credit: National Human Genome Research Institute

Genetic research on concussions is progressing in many different avenues. However, researchers presenting their work at the American Orthopaedic Society for Sports Medicine's (AOSSM) Specialty Day, believe there may be a new genetic connection regarding recovery rates following a sports-related concussion.

"Athletes carrying a specific genotype (CACNA1E rs704326) in our

study were found to have a much greater risk of a prolonged recovery following concussion," said lead author, Jane McDevitt, PhD from Temple University in Philadelphia. "Athletes who also reported having balance issues/deficits were also more likely to take a longer time to recover."

McDevitt and her team analyzed information from 40 [athletes](#) with a diagnosed concussion from a hospital concussion program. Researchers further evaluated the concussion injury characteristics, acute signs, symptoms and then objective screenings, such as vestibular ocular assessments, balance error scoring, and Immediate Post-Concussion Assessment and Cognitive Testing exam. In addition, study participants provided a salivary sample to isolate certain DNA.

"We need to perform additional research but we think there may be a connection between the [genetic](#) proteins and the increase of calcium which leads to the deficits in recovery," said McDevitt.

Provided by American Orthopaedic Society for Sports Medicine

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