

For Polyclinic User in Tokyo Olympics 2021

Please Cooperate for This Study Project

Objective of the project:

Purpose of this study is to survey muscle strain epidemiology and injuries epidemiology of 3x3 basketball, and to identify the risk factors associated with muscle strain and with all injuries of 3x3 basketball players in Tokyo 2021 Olympics.

Relevance and significance of the project:

Muscle strain is common sports injury which can disrupt training and competition. The general absence from sports after muscle strain is 2-4 weeks. A total of 68 muscle strain were reported at Rio de Janeiro 2016 Olympics. In Olympians, the risk factors associated with muscle strain and the association of muscle strain with performance have not been evaluated. Identification of the risk factors associated with muscle strain in Olympians will prevent undesired injuries for not only Olympians, but also young athletes aspired to be in future Olympic games.

Although there are many studies about injury prevalence and type of indoor basketball, there is almost nothing of study about them of 3x3 basketball. 3x3 basketball is registered as Tokyo Olympic sports for the first time. The injury prevalence and type of 3x3 basketball would be different from indoor basketball. Identification of the general epidemiology of 3x3 basketball in Olympians will be valuable information for preventing injuries and preparation of medical care for not only Olympians, but in all future games around the world.

Study design: Retrospective

Study subjects:

All Olympians who are diagnosed with muscle strain at Polyclinic in Olympic Village

(Expected Number : 50-100 players)

All indoor basketball and 3x3 basketball players who visit Polyclinic in Olympic Village

(Expected Number : 100-180 players)

Outcome measures:

We use the data of medical records at Polyclinic in Olympic Village after Tokyo 2021 Olympics.

Demographics collected will include age, gender, position, mechanism of injury and past medical history. A questionnaire detailing their symptoms/duration, training details, performances and menstrual history and a brief eating disorder will be collected. And, physical examination, blood sampling data and image including X-ray, MRI, and ultrasound will be collected. The information which identify an individual person such as name and ID will be deleted and we will manage each individual data by numbering. Anonymity for Olympians will be kept in this study. We will not share the individual data, but share only the way and result of analysis between project teams.

Data analysis:

The frequency, means, standard deviations, and incidence rates of injury will be calculated.

Statistical analysis of all the data will be completed post Olympic games.

Project team:

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- 3) Diagnostic Radiology and Nuclear Medicine, Tokyo Medical and Dental University
- 4) Department of Orthopedics, University of Pittsburgh
- 5) Department of Orthopedics, University of Oslo
- 6) Department of Radiology, The University of British Columbia
- 7) International Olympics Committee Medical and Scientific Games Group

Title:

Muscle strain epidemiology at the Tokyo 2021 Olympics and evaluation of the risk factors associated with muscle strain in Olympians

Research Period :

From the permission date of the Research implementation to March 31, 2026

Principal Investigator : Hideyuki Koga, Tokyo Medical and Dental University, Graduate School of Medical and Dental Sciences, Joint Surgery and Sports Medicine

Approval Code of Research Ethical Committee:

Tokyo Medical and Dental University School of Medicine
Code Number(M2021-048)

Conflict of Interest:

We have no financial relationships to disclose.

Facultativity and Refusal to this study:

It depends on your free will if you cooperate to this study as subject. If you do not want to join in this study, there is no disadvantage to you. When you decline to join in this study, we will exclude you from this study and delete your information. Please contact us when you have any question and want to decline to join in this study.

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