

INTERNATIONAL RESEARCH JOURNAL OF MANAGEMENT SOCIOLOGY & HUMANITIES



ISSN 2277 – 9809 (online)

ISSN 2348 - 9359 (Print)

An Internationally Indexed Peer Reviewed & Refereed Journal

www.IRJMSH.com
www.isarasolutions.com

Published by iSaRa Solutions

ACUTE INJURIES IN TRIATHLETES: PREVALENCE, CAUSES AND DURATION

Dr. Garima Bajaj

Assistant Professor

Department of Physical Education, Jesus and Mary College

University of Delhi

Ms. Megha Bisht

Research Scholar

Department of Physical Education, Jesus and Mary College

University of Delhi

ABSTRACT

Triathlon is an endurance sport that demands continuous physical effort, mental resilience, and disciplined training across swimming, cycling, and running. While the sport is expanding steadily in India, discussions around injury prevention and management remain limited. International studies suggest that a large number of triathletes experience at least one significant injury each year, most commonly affecting the knees, ankles, hips, and shins due to repetitive stress. However, these findings may not fully represent Indian athletes, whose training environments, climate conditions, and access to professional support differ considerably from Western contexts. This study aims to explore the pattern of common injuries amongst Indian triathletes and understand the factors contributing to them. A self-made survey-based approach was used to collect data directly from prior injured triathletes regarding injury type, duration, causes, training phase, and treatment methods. The objective of this study was to find the ten most common acute injuries in triathletes and the ten most common chronic injuries in triathletes, with the study age group being between 22 and 68 years of age. The results of the study were found to be that the ten most prevalent acute injuries were Calf strain, Shoulder pull, Ankle pain, Shoulder strain, Foot blister, Ankle twist, Shoulder tightness, Shoulder soreness, Hamstring pull and Foot bruise; whereas the least prevalent acute injuries were Wrist fracture, Hip lumbar tear, Meniscus swelling and Arthritis. The common cause for the most prevalent acute injury - Calf strain has been noticed from running, interval training, training on different terrain and pushing off too much during training.

Key Words: Triathlon, Injury, Ironman, Triathlete, Acute Injury, Chronic Injury

INTRODUCTION

Triathlon is a multidimensional endurance sport that combines swimming, cycling, and running into a single competitive event. Beyond its physical demands, it requires psychological resilience, emotional regulation, and consistent training discipline. As participation in triathlon continues to grow in India, the physical strain associated with the sport has also become more visible. Despite global research highlighting high injury prevalence among triathletes, there is limited evidence

documenting injury patterns within the Indian context. Environmental conditions, training infrastructure, climate, and access to sports medicine resources differ significantly from Western settings, where most studies have been conducted. This gap makes it essential to examine injury trends specifically among Indian triathletes. (Friel, 2016)

The primary objective of this study is to investigate the prevalence, nature, causes, duration, and management of injuries among Indian triathletes. A survey-based research design was employed to gather first-hand information from athletes across different experience levels. The questionnaire collected data on demographic background, training volume, competition level, injury history, affected body regions, suspected causes, recovery duration, and treatment approaches. In addition to identifying common injury sites, the study also explores whether injury occurrence varies according to training phase, intensity, or years of experience in the sport.

Another important aspect of this research is the behavioural response of athletes following injury. While some triathletes seek professional medical care immediately, others rely on self-treatment, home remedies, online advice, or temporary reductions in training load. In several cases, athletes continue to train through pain due to concerns about losing fitness or missing competition opportunities. These decisions can significantly influence recovery outcomes and long-term health. By examining such patterns, the study aims to understand not only physical injury trends but also the psychological and practical factors that shape injury management. (Collins & Kohe, 2019).

The findings of this research are intended to provide context-specific evidence that can support the development of safer and more sustainable training practices in India. Identifying recurring injury patterns may assist coaches in modifying training schedules, emphasising recovery strategies, and incorporating strength and conditioning programs tailored to local demands. Furthermore, improved awareness of early warning signs may encourage athletes to seek timely intervention rather than normalising persistent pain. The study also highlights the importance of strengthening access to sports medicine support, injury screening programs, and educational workshops within the Indian triathlon community.

SIGNIFICANCE OF THE STUDY

This study examines injury patterns among triathletes, focusing on acute injuries. It aims to identify the common types of injuries, their causes, and their duration. The study highlights the most frequent injuries in triathlon and raises awareness about early prevention and self-care. It supports coaches and trainers in planning safer training programs and addresses the need for research specific to triathlon-related injuries. By emphasising balanced training and recovery, the study promotes sustainable performance and contributes to a better understanding of endurance and multi-sport injuries, with relevance extending to other endurance sports.

OBJECTIVES OF THE STUDY

The objectives of the study were to examine the acute injuries faced by triathletes, analyse the injuries experienced by them, identify the causes of these injuries, and determine the duration of injury occurrence and recovery.

METHODOLOGY

This study employed a descriptive survey design to examine common injuries among triathletes. Data were collected through a structured survey administered to actively training and competing triathletes. The questionnaire gathered information on demographic details, training background, injury type, causes and duration.

Participants were selected using purposive sampling to ensure relevant experience in the sport. The collected data were analysed using descriptive statistics such as frequencies and percentages to identify common injury patterns and recovery trends. Ethical considerations were maintained, and participation was voluntary.

SELECTION OF THE QUESTIONNAIRE

Data for the study were collected through a self-made survey. The self-constructed survey included a structured table designed to record the name of the injury, its cause, the duration of the injury, and the treatment undertaken after its occurrence.

SELECTION OF THE SUBJECTS

The subjects for the study were national-qualified triathletes, including both training and retired athletes. A total of 103 participants were selected using non-probability sampling method. All participants had experienced some form of acute injury in the past or were dealing with one at the time of the study.

CONCLUSIONS

The ten most prevalent acute injuries were calf strain, shoulder pull, ankle pain, shoulder strain, foot blister, ankle twist, shoulder tightness, shoulder soreness, hamstring pull and foot bruise.

Causes for the ten most prevalent acute injuries found in 103 triathletes, starting from the most prevalent to the least prevalent:

- Most prevalent acute injury was calf strain due to interval training, training on different terrain and pushing off too much during training
- Shoulder Pull due to hard swim set, high-intensity swim, open water swim, paddle swim and sprint swim.
- Ankle sprain due to trail running, missed step and uneven running surface
- Foot blister due to new shoes and long running.
- Ankle twist due to uneven surface, sharp turn while running, track turn and trail run.
- Shoulder tightness due to intense swimming, continuous swimming, and sprint swimming.
- Shoulder soreness due to hard swim set, high swim load, long swim, regular swimming drills, sprint swim and swim fatigue.
- Hamstring pull due to speed drills, speed intervals, sprint efforts and sprint drills.
- Least prevalent being Foot bruises due to hard landing and missed footing.

Duration of the ten most prevalent acute injuries found in 103 triathletes, starting from the most prevalent to the least prevalent:

- Most prevalent acute injury was calf strain, which was found to be between the range of 10 days to 21 days.
- Shoulder Pull, which was found to be between the range of 4 days to 21 days.
- Ankle sprain, which was found to be between the range of 8 days to 21 days.
- Foot blister, which was found to be between the range of 3 days to 7 days.
- Ankle twist, which was found to be between the range of 10 days to 15 days.
- Shoulder tightness was found to be between the range of 3 days to 7 days.
- Shoulder soreness was found to be between the range of 4 days to 7 days.
- Hamstring pull, was found to be between the range of 14 days to 21 days.
- Least prevalent being Foot bruises, was found to be between the range of 7 days to 21 days.

REFERENCES

- Andersen, C. A., Clarsen, B., & Johansen, T. V. (2013). High prevalence of overuse injury among triathletes. *British Journal of Sports Medicine*, 47(17), 1084–1089.
- Collins, D., & Kohe, G. (2019). *Social and psychological factors in sports injury rehabilitation*. Routledge.
- Friel, J. (2016). *The triathlete's training bible* (4th ed.). VeloPress.
- Gosling, C. M., Gabbe, B. J., & Finch, C. F. (2010). Epidemiology of injuries in triathlon: A systematic review. *Journal of Science and Medicine in Sport*, 13(4), 351–356.
- Millet, G. P., & Vleck, V. E. (2011). Physiological and biomechanical adaptations to the cycle-to-run transition in Olympic triathlon. *Sports Medicine*, 41(6), 469–483.



EARN YOUR MBA

WWW.IIMPS.IN



Accreditation & Ranking



UGC / NCTE Approved.

INFO@IIMPS.IN

☎ 011-41005174

R
S
E
A
R
C
H
G
A
T
E
W
A
Y

STOP PLAGIARISM



Arogyam Ayurveda
Holistic Healing through herbs



A
R
O
G
Y
A
M
O
N
L
I
N
E

PARIVARTAN PSYCHOLOGY CENTER



COLOR PSYCHOLOGY : HOW COLOR AFFECT YOUR CHILD



- BLUE** Calms your Child's Mind & Body
- YELLOW** Promotes Concentration, Stimulates the Memory
- PINK** Evokes Empathy, makes your Child Calm
- RED** Excites and energizes your Child's body
- GREEN** Improves Reading speed and Comprehension

www.parivartan4u.com



Confuse about your children's future?

भारतीय भाषा, शिक्षा, साहित्य एवं शोध

ISSN 2321 – 9726

WWW.BHARTIYASHODH.COM



**INTERNATIONAL RESEARCH JOURNAL OF
MANAGEMENT SCIENCE & TECHNOLOGY**

ISSN – 2250 – 1959 (O) 2348 – 9367 (P)

WWW.IRJMST.COM



**INTERNATIONAL RESEARCH JOURNAL OF
COMMERCE, ARTS AND SCIENCE**

ISSN 2319 – 9202

WWW.CASIRJ.COM



**INTERNATIONAL RESEARCH JOURNAL OF
MANAGEMENT SOCIOLOGY & HUMANITIES**

ISSN 2277 – 9809 (O) 2348 - 9359 (P)

WWW.IRJMSSH.COM



**INTERNATIONAL RESEARCH JOURNAL OF SCIENCE
ENGINEERING AND TECHNOLOGY**

ISSN 2454-3195 (online)

WWW.RJSET.COM



**INTEGRATED RESEARCH JOURNAL OF
MANAGEMENT, SCIENCE AND INNOVATION**

ISSN 2582-5445

WWW.IRJMSSI.COM



**JOURNAL OF LEGAL STUDIES, POLITICS
AND ECONOMICS RESEARCH**

WWW.JLPER.COM

JLPE