

## Editorial

# Confronting the Challenges of Sports Injuries in Developing Countries: A Focus on Nepal.

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### Introduction

Sports-related injuries are rising correspondingly as sports become an increasingly integral part of life in developing countries like Nepal. Whether it's the growing enthusiasm for football, cricket, volleyball, or traditional sports, more people, especially youth, are engaging in physical activities that expose them to potential injuries.<sup>1</sup> While the benefits of sports in promoting health, social cohesion, and national pride are undeniable, the management of sports injuries in these contexts presents significant challenges.<sup>2</sup>

### Overview of Sports Injuries in Nepal

Sports participation in Nepal has surged over the past few decades. The government's focus on sports development, increasing media coverage, and the rise of local sports clubs have fostered a sports culture. However, with this growth has come an increase in sports-related injuries.<sup>3</sup>

Common injuries include sprains, fractures, dislocations, ligament tears, and concussions, often resulting from inadequate training, lack of proper equipment, and poor playing conditions. Nepal's rugged terrain, particularly in rural areas, contributes to a higher risk of injury, especially in adventure sports like trekking, mountaineering, and paragliding. In urban areas, injuries in football and cricket dominate, often exacerbated by insufficient medical oversight during games and training sessions.<sup>4</sup>

### Diagnosis Challenges

One of Nepal's most significant hurdles in managing sports injuries is the challenge of accurate and timely diagnosis. The healthcare infrastructure in the country is underdeveloped, especially in rural areas where most of the population resides. Several key factors contribute to these challenges:<sup>5</sup>

#### 1. Lack of Specialized Medical Facilities and Equipment:

In Nepal, advanced diagnostic tools such as MRI machines, CT scans, and even basic X-ray facilities are often limited to major cities. For a country where most of the population lives in rural areas, this creates a significant gap in access to diagnostic services. Without proper diagnosis, athletes are often misdiagnosed or undiagnosed, leading to improper treatment and prolonged recovery times.<sup>5</sup>

#### 2. Training and Expertise Gaps Among Healthcare Professionals:

More healthcare professionals need to be trained in sports medicine. Most doctors and paramedics

working in rural health posts and clinics have limited exposure to sports-related injuries and often require more expertise to diagnose them correctly. This is further compounded by a need for continuing education opportunities in sports medicine, leaving many practitioners needing to be equipped to handle the nuances of sports injuries.<sup>5</sup>

#### 3. Financial Constraints Affecting Access to Diagnostic Tools:

The cost of advanced diagnostic procedures is prohibitive for many athletes in Nepal, particularly those from economically disadvantaged backgrounds. Even when facilities are available, the high cost of these services deters many from seeking proper diagnosis. This financial barrier often forces athletes to rely on less accurate, traditional methods of diagnosis, which can lead to ineffective or even harmful treatment practices.<sup>5</sup>

### Treatment Challenges

Once an injury is diagnosed, the next hurdle is treatment—a process fraught with challenges in a developing country like Nepal.<sup>4</sup>

#### 1. Availability and Affordability of Treatment Options:

Specialized treatment for sports injuries is limited in Nepal. While a few private hospitals in major cities offer advanced surgical interventions and rehabilitation services, these are out of reach for most Nepalese athletes due to high costs. Public healthcare facilities, on the other hand, are often underfunded, understaffed, and need more equipment to provide comprehensive care. However, in the recent past, many government hospitals have started sports injury treatment with insurance policy coverage; continuous technology updates still need to be improved, which is essential to abreast rapidly developing technologies.<sup>3</sup>

#### 2. Shortage of Rehabilitation Facilities and Trained Physiotherapists:

Rehabilitation is a crucial component of recovery from sports injuries. However, it must be addressed in Nepal due to the shortage of facilities and trained professionals. Physiotherapy is an essential part of the healing process, but there are very few trained physiotherapists in the country, and those who are available are concentrated in urban centers. This leaves athletes in rural areas with little to no access to the rehabilitation services they need to return to their sport.<sup>6</sup> The number of Physiotherapists has significantly improved in Nepal recently. However, well-equipped facilities with advanced equipment are required for sports rehabilitation. To our knowledge, no dedicated sports injury rehab facilities with advanced equipment are available in Nepal.

### Cultural and Socioeconomic Factors

Nepal's cultural and socioeconomic landscape adds another

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layer of complexity to the issue of sports injuries.

**1. Influence of Cultural Beliefs on Treatment Choices:** Cultural beliefs and practices also significantly affect how sports injuries are treated in Nepal. In many parts of Nepal, there is a strong reliance on traditional healing methods. Conventional medicine and healing practices are still prevalent, particularly in rural areas. While these practices are an important part of the cultural fabric, they can sometimes conflict with modern medical approaches, particularly in treating sports injuries. The belief in the efficacy of traditional healers, coupled with a need for more awareness about modern medical treatments, often leads athletes to delay or avoid seeking professional medical care. Additionally, logistical challenges such as long travel distances, poor road conditions, and lack of transportation hinder timely medical care access.<sup>7</sup>

**2. Socioeconomic Impact of Sports Injuries on Individuals and Families:** A sports injury can have devastating economic consequences for many athletes in Nepal. The cost of treatment, coupled with the loss of income during recovery, can push families into deeper poverty. This is especially true for those who rely on sports as a source of income or those who work physically demanding jobs where an injury can result in long-term unemployment.<sup>8</sup>

### Government and Institutional Responses

The government has tried improving healthcare infrastructure, particularly sports. Establishing a National Sports Council and developing sports medicine as a recognized field are positive steps. However, these initiatives often need more funding and more resources to be effective. More comprehensive policies are required to address athletes' specific needs, particularly in injury prevention, diagnosis, and treatment. Unfortunately, rather than a professional managing the resources, politically influenced people are in charge of such initiatives, causing very slow growth.<sup>3-5</sup>

### Recommendations for Improvement

Several key actions are needed to address the challenges of sports injuries in Nepal.

**1. Advocacy for Increased Funding and Resources for Sports Injury Management:** There is an urgent need for increased funding from both the government and international donors to improve the diagnosis and treatment of sports injuries. This includes investing in healthcare infrastructure, training healthcare professionals in sports medicine, and making advanced diagnostic tools and treatment options more widely available.<sup>3</sup>

**2. Training Programs for Healthcare Professionals:** Expanding training programs for healthcare professionals, particularly in rural areas, is crucial. This includes not only doctors but also paramedics, nurses, and physiotherapists. Training programs should focus on the specific needs of athletes and the unique challenges of sports injuries, ensuring that healthcare workers are equipped to provide the best possible care.<sup>4</sup>

**3. Importance of Community Education on Injury Prevention and Early Intervention:** Community education is another essential component of addressing sports injuries. Athletes, coaches, and community leaders must be educated about injury prevention, early diagnosis, and proper treatment. This can be achieved through awareness campaigns, workshops, and the inclusion of

sports medicine education in school curricula.<sup>5</sup>

**4. Insurance Coverage for All Types of Sports Injuries:** Although insurance policies in Nepal are improving, compulsory insurance policies for all types of sports at the provincial and district levels are urgently needed. Some bigger sports organizations are providing insurance coverage only during the games. But sportsmen are always at a higher risk of injury on and off-season. Hence, the insurance coverage must be around the clock. Insurance policies have to be more stringent in lower levels of sports, like district and provincial levels. As the training infrastructures are poor at local levels, there will be a high chance of injury requiring costly treatment. A good insurance policy seems to be the key factor in diagnosis and treatment accessibility.<sup>6</sup>

### Conclusion

Sports injuries in developing countries like Nepal represent a significant but often overlooked public health challenge. The lack of adequate diagnosis and treatment facilities, combined with cultural and socioeconomic barriers, complicates the management of these injuries. However, an adequate insurance system may address challenges associated with sports injuries in Nepal.

## REFERENCES

1. Pedisic Z, Shrestha N, Loprinzi PD, Mehata S, Mishra SR. Prevalence, patterns, and correlates of physical activity in Nepal: Findings from a nationally representative study using the Global Physical Activity Questionnaire (GPAQ). *BMC Public Health* [Internet]. 2019 Jul 3 [cited 2024 Oct 5];19(1):1–8. Available from: <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-019-7215-1>
2. Martín-Rodríguez A, Gostian-Ropotin LA, Beltrán-Velasco AI, Belando-Pedreño N, Simón JA, López-Mora C, et al. Sporting Mind: The Interplay of Physical Activity and Psychological Health. *Sports* [Internet]. 2024 Jan 1 [cited 2024 Oct 5];12(1). Available from: <https://pmc/articles/PMC10819297/>
3. Pant, P.R., Mytton, J., Dharel, M.R. et al. The prevention of – and first response to – injuries in Nepal: a review of policies and legislation. *Health Res Policy Sys* 19, 65 (2021). <https://doi.org/10.1186/s12961-021-00686-1>
4. Bhatta S, Magnus D, Mytton J, Joshi E, Bhatta S, Adhikari D, Manandhar SR, Joshi SK. The Epidemiology of Injuries in Adults in Nepal: Findings from a Hospital-Based Injury Surveillance Study. *International Journal of Environmental Research and Public Health*. 2021; 18(23):12701. <https://doi.org/10.3390/ijerph182312701>
5. World Health Organization. (2007). *Health System in Nepal: Challenges and Strategic Options*. WHO Regional Office for South-East Asia. ISBN:978:92-9022-266-8.
6. Shakya, N.R., Shrestha, N., Webb, G. et al. Physiotherapy and its service in Nepal: implementation and status reported from facility surveys and official registers. *BMC Health Serv Res* 24, 295 (2024). <https://doi.org/10.1186/s12913-024-10747-0>
7. Wasti PS, Randall JA, Simkhada P, van Teijlingen E. In what way do Nepalese cultural factors affect the adherence to antiretroviral treatment in Nepal? *Health Science Journal*. 2011;5(1):37-47.
8. Banstola, A.; Kigozi, J.; Barton, P.; Mytton, J. Economic Burden of Road Traffic Injuries in Nepal. *Int. J. Environ. Res. Public Health* 2020, 17, 4571. <https://doi.org/10.3390/ijerph17124571>