

**146 - EFFECTS OF INJURIES IN SOCCER AND FUTSAL PLAYERS IN CAMPO GRANDE-MS**

PAULO CESAR MONTEIRO  
RAMON GUSTAVO DE MORAES OVANDO  
Dom Bosco Catholic University - UCDB, Campo Grande - MS - Brazil  
ramongustavo@uol.com.br

**INTRODUCTION**

The growth of soccer activities has grown rapidly in recent years, accompanying this growth, the lesions are becoming more frequent and severe. Their origins and treatment is a challenge to be overcome since they have different mechanisms of origin.

In the current football and futsal, the matches are very sought after causing foul play, and so frequent occurrence of lesions in both games and training. We can observe that the players suffer a lot with injuries caused by fouls awarded, or for actions of great power and speed that the joints are very demanded due to changes in direction, impact with the ground and injuries.

With characteristics similar dispute, futsal is faster and dynamic, their actions take place in confined spaces, which requires large motor skills during a game of soccer, the intense efforts made for a short period of time, alternating with periods of low intensity. The different types of displacement, with large accelerations, decelerations, changes of direction, kicks, passes, dribbles, tackles, jumps, provide a significant neuromuscular adaptation, promoting the power and agility (Barbieri 2009).

Over-training, intense games with overload, short time for the recovery of athletes, and lack of efficient physical preparation, can be closely linked with the prevalence of injuries in soccer and football.

The present study aimed to identify the most common injuries in soccer players and professional soccer, adult category / principal and conduct a comparative study between them. With the idea of helping in the development of prevention mechanisms and a more efficient recovery.

**HISTORY AND CHARACTERISTICS OF SOCCER**

Football as we know it was organized and regulated in England on October 26, 1863 with the founding of the Football Association in London between 1810 and 1840 because of the many different rules and the need to impose their own rules and Borsari (1989). In Brazil the mixture at various times with the history of the country in the last hundred years, has become an important element of Brazilian culture. It is an intermittent sport, with constant intensity changes and activities. The unpredictability of events and actions during a game requires the athlete is more prepared to react to different stimuli, the most efficient manner possible these factors may contribute and may raise the injuries and sudden shocks ripped through the body, predominantly in lower limbs. The unpredictability of events and actions during a game requires the athlete is more prepared to react to different stimuli, the most efficient manner possible (BARBANTI, 1996).

The Origin of futsal, formerly known as soccer, refers to Uruguay in 1930. Juan Carlos Ceriani, a physical education teacher who lived in the Argentine city, noted that because of the lack of soccer fields, kids play soccer on the basketball court. The concept of the new modality was before his eyes, and quickly spread throughout the continent. Based on the history and development of several authors quoted in the futsal world got its rise so rapidly being recognized and practiced by many developing nations is one of the most popular sport worldwide and more frequent in Brazil with about 12 million practitioners (Barbieri, 2009).

The main feature of futsal is the dynamism and speed, greater than that seen in football, despite the great similarity, futsal and football are not the same sport and the main differences between these modalities are some rules, particularly in relates to the size and condition of the floor (Barbieri, 2009). As an example in futsal, the biggest shot that takes place in a training can vary between five and seven meters, while in soccer the biggest pike carried by a player may reach 20 meters.

Team sports practiced in different environments cause different problems, characterized with the type of contact between the athletes, and even grip the ground or floor where the disputes are conducted, it relieves muscle tension or increase (Susan Kay 2002).

In football, a sport that is quite complex in terms of perfect linkage between the physical, technical, tactical and psychological treatment, the incidence of injury has been high in recent years. We can observe that the practice of futsal DARIO (2007) found that there was a higher number of injuries at the ankle level around (44.4%), considered in a general parameter pointed to by the author, and the 2nd member with more injuries were the external lateral ligament of the ankle (33.4%).

The hours of the fitness games are factors that significantly increase the risk of muscle injury and osteo-articular, not to mention the vast amount of games during the tournament, according to several studies by addition of sports medicine has been investigating ways to develop individualized rehabilitation effectively and rapidly (Cavalcante Neto, 2003).

The injury is an unfortunate occurrence of everyday life, some individuals suffer more severe injuries and more often, but when this one is spared the pain and dislocation caused by the damage. Are adverse events which occur in a practice accident or play, whatever its causes, cause inconvenience to the athletes and the clubs are so necessary to develop mechanisms to prevent and identify the most common injuries in soccer and futsal (Fong et al. 2007).

Knowing that there are several factors that cause lesions in this study tried to identify major injuries knowing that these measures are important in order to seek preventive programs to meet the results of any team is soccer or football.

**CLASSIFICATION OF INJURIES**

Injuries can be classified into two basic categories: traumatic and overuse. Traumatic injuries are sudden events, with immediate effect, perhaps pain, swelling or bruising. They may also be extrinsic, due to some external cause such as a sudden twist or fall, and intrinsic without an obvious cause such as sudden stretch of flexor muscles of the knee. The injuries from overuse are more subtle, because it simply as a pain that increases gradually, directly associated with repeated use. The study of extrinsic factors of the locomotor system is still an open field for many studies. Moreover the identification of intrinsic factors in the genesis of sports injury is well established in many situations. The knowledge that previous injury, obtained by a simple history of the athlete is an important predictor of future injury (DARIO 2007).

Athletes are subject to be injured either in training or competition, these lesions are directly related to extrinsic and intrinsic or a preventive program, regardless of the type of sports injuries, they are the result of a complex combination of risk factors. Intrinsic factors are those related to the athlete such as age, gender, physical fitness, motor development and psychological factors among others.

Since the extrinsic factors are those that are related to the environment of the athlete, the technical specificity of each modality, type of equipment used, organization of training, loads of training and competitions, weather and more.

The injury (compression is an injury caused by direct trauma resulting in capillary rupture, bleeding and inflammatory response) and tear (where there is loss of muscle tissue) or may be non-traumatic lesions caused by extrinsic factors that are assigned other factors that do not depend on an agent to the sternum occur, most often occurs as a response of body to cramp (pain generated for reasons still not understood scientifically, which decreases the functional capacity of the muscles causing pain, spasms and loss of strength).

According BARBANTI (2007), muscle injuries are classified according to the action, which can be direct (most common in contact sports) or indirect (common in individual sports), as the functionality that can be partial, where the muscle loses strength can further tighten up, or may be total, when joint mobility and muscle strength, may be null, ie, the muscle does not contract anymore. Therefore muscle injury can be attributed to an offending agent, which can be traumatic stretching or distention (when a muscle tendon unit is stretched excessively or forced to contract against an excessive resistance, exceeding their limits of extensibility and tensile capacity).

Cohen & Abdalla (1997), argue that football is art making room for football force that has caused physical injuries to athletes because of the strong stand of markup, and physical fitness.

To Carazzato (2002), the search for evidence and success requires athletes, necessary and inevitable condition of being subjected to physical and mental effort too close to their physiological limits, thus exposing them to a range of potentially pathological activity, resulting in high numbers of sports injuries.

According Carazzato et. al. (2002), psychological reactions are also, in part because the etiology of the lesion. We can observe striking difference between macro and micro-trauma, this is because, in macrotrauma, the damage is caused by a specific event, eg a trolley, a blow to the thigh in futsal, the cause of pain is easily recognized, rehabilitation process is directed to a specific problem and the athlete knows what he must do to recover. Unlike microtrauma, there is a progressive degeneration of performance that may be the result of months and even years of stress. The athlete feels the pain for a long time without a clear explanation of the cause, which increases the frustration and depression, for training to improve performance and results show a decline in performance.

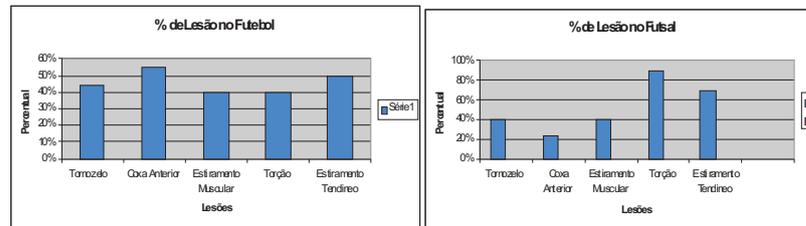
**METHODOLOGY**

This study has search features quanlit as aggregates in their survey data in several different vantage points, according to the characteristics of each modality. The sample consisted of 30 athletes, 15 male football team represented by Cene - New Hope Sports Centre, and 15 futsal team composed by the Salesian (UCDB), both competing at the amateur and professional categories.

All the athletes signed IC (Free Consent Term clarification) becoming aware of the important role they were developing for the research. The instrument was a pre-prepared questionnaire containing 42 questions with straightforward. Was not performed for a statistical significance, with a study of descriptive analysis of the results using Microsoft Excel to analyze the highest rate of injury and a comparative analysis between the modalities.

**ANALYSIS AND DISCUSSION OF RESULTS**

According to the analysis of the graphs one can see that in football the greatest incidence of injury is located in the anterior thigh represented 55% of injuries reported. Among them were reported: 40% of ankle sprain, muscle strain 40%, 50% tendon stretch. Already in futsal was possible to identify that the highest incidence of injury is the twist representation with 90% of injuries reported in this modality. Among the other studied tendon stretch are 70%, 40% ankle sprain.



In the survey it was found that in football the highest incidence of this lesion in the anterior thigh, or muscle injury in indoor soccer and twist, or osteo-articular lesion, both are among the leading causes of absenteeism in these modalities. Therefore analyzing the unknowns, set forth herein, we can see that more specific information about the most common injuries of athletes can help the professional soccer and futsal in preparing their teams and their players. We can see that the fact that soccer players have shown higher rates of injury of muscle type, does not mean that their ability or muscle strength is lower than a soccer player, perhaps the highest rate may be related to the fact the sports calendar is a little more demanding, or training are more common, since football players train two periods and only a futsal coach, and also by specific rules of procedure, such as in football you can not make unlimited substitution as in soccer where the athlete has the opportunity to rest during a match. Another relevant factor is that the footballers playing time of 90 minutes, and futsal play 40 minutes. Therefore the futsal players have a higher rate of lesion type osteo-articular, perhaps because the type of surface characteristics and dimensions of the court, making the drives are faster and more abrupt, without forgetting that physical contact is also more frequent.

Among the activities that consisted the lesions are usually more frequent in, competitive season. Below are the data from each modality.

ACTIVITY	Activity in which the injury occurred	
	SOCCER	FUTSAL
Before the 1st contest of the regular season	10% of athletes were injured at that stage.	No lesion was found during this period.
regular season	15% suffered injuries during this phase.	15% were injured after the end of the season.
End of Season	75% suffered injuries this season	80% were injured in the competition period.
After the final competition	No incidents were reported during this phase.	5% reported physical exhaustion with the end of the competitions.
After the final competition Pre Season	Only psychological, mild anxiety before competition.	There were no incidences of injury in the team during this period.

**FINAL**

Based on the results it was possible to identify more members injured in football is the anterior thigh 55%, then stretch the tendon with 50%, muscle strain is represented by 40%, ankle twisting is responsible for 40% of damage, since tendon injuries in the stretch is the main cause of 50%. In indoor soccer the highest incidence of injury is the twist with 90%, 70% tendon stretch, the ankle with 40% in the tendon, stretched to 40% of the athletes. The study presents the main sports injuries where there is the caveat that other data in order to identify with greater accuracy the most frequent.

Although very similar sports are distinct similarities in states with the highest rates of injury are differentiated only by the percentage that occur. We believe that the difference in limb injuries is due to the common characteristic of each sport, as they are played with intensity, quantity and physical fitness characteristics of each modality.

There is an undeniable need that we should invest in quality and organization of sports in Brazil, as part of popular culture and have a lot of followers of different ages and social classes, and are responsible for awakening hopes and dreams for young boys looking at sport an opportunity to change your life.

This study has contributed with a study area that interests many professionals such as physical trainers, physiotherapists, doctors and so on. Getting the suggestion of the development of other similar studies with different samples involving different categories, genres and teams. And for those professionals working with the football and futsal beware the cost of injuries so they can minimize the most of some types of injuries very common in these modalities.

**REFERENCES**

1. BARBIERI, F. A. Futsal: theoretical and practical knowledge for teaching and training. Jundiai, SP: Fontoura, 2009.
2. Borsari, J. R. Soccer Field. São Paulo: EPU, 1989
3. BARBANTI, V. J. Physical training: a scientific basis, São Paulo. 3rd ed. 1996.
4. Carazzato JG. An epidemiological study of ankle sprains in volleyball athletes with high yield, Sao Paulo 2.Ed: Pfizer Laboratory, (2002).
5. COHEN, M.; ABDALLA, Orthopedic Injuries in Football. Journal of Orthopedics, n 32, p 940-944, 1997
6. DARIO, FA The evolution of techniques to prevent injury in sport Developed in Brazil and has its basis only in open-access journals, 2007.
7. FONG, D. T., A systematic review of muscular injuries in sports. Sports Med v. 37, p. 73-94, 2007.
8. MILK, Cavalcante Neto, The Biggest Causes of Muscle Injury in Football 2003. Htt: / / www.edepotes.com/efd61/futebol.htm.
9. MILK, C.B.S.; CAVALCANTE NETO, F.F. Incidence of Injury in Trauma orthopedic Female Football Field and its Relation to Postural Changes. Digital Magazine Efdespotes-Buenos Aires-Year 9 - No 61 - jun 2003. Available at: <http://www.efdespotes.com/efd61/futebol.htm>. Acesso: 15 ab.
10. SUSAN KAY, Assessment, Prevention and Immediate Treatment Of Sports Injuries, Revinter, 2002.

Street: Rua Plutão - Campo Grande – MS – Brazil

Email: ramongustavo@uol.com.br

Phone: 55 67 9984-7375

**EFFECTS OF INJURIES IN SOCCER AND FUTSAL PLAYERS IN CAMPO GRANDE-MS****ABSTRACT**

This study aimed to identify the major injuries incurred in soccer, futsal, and seek to determine the apparent relation to the two modes as they have similar characteristics in the physical contest. The study is quantitative trait, where the sample was composed of 15 players of the Club de Campo Grande Cene, professional category, and that counts in his squad of athletes aged 20 to 32 years. Futsal in 15 athletes participated in the study, aged between 18 and 37 years representing the team futsal UCDB. All the athletes signed TLCE (Free Consent Term clarification) becoming aware of the important role they were developing for the research. A questionnaire was used which involved issues related to time to practice football or soccer, history of injury, recovery time, type of injury, types of chronic pain, discomfort and impairment caused by injuries. the results it was possible to identify more members injured in football is the anterior thigh 55%, ie, the highest index of muscle damage is, in soccer the highest incidences of injury is the twist at 90%, ie osteo-articular lesion. For professionals who work with the football and soccer this study may point to beware that the incidence of injuries so they can minimize the most of some types of injuries very common in these modalities.

**EFFETS DE BLESSURES AU SOCCER ET JOUEURS DE FUTSAL A CAMPO GRANDE-MS****RÉSUMÉ**

Cette étude visait à identifier les blessures graves subies dans le football, le futsal, et cherchent à déterminer la relation apparente avec les deux modes car ils présentent des caractéristiques similaires au concours physique. L'étude est un caractère quantitatif, où l'échantillon était composé de 15 joueurs du Club de Campo Grande Cène, catégorie professionnelle, et qui compte dans son équipe d'athlètes âgés de 20 à 32 ans. Futsal dans 15 athlètes ont participé à l'étude, âgés entre 18 et 37 représentant l'équipe de futsal UCDB. Tous les athlètes ont signé TLCE (libre consentement terme clarification) prise de conscience du rôle important qu'ils étaient en développement pour la recherche. Un questionnaire a été utilisé qui soulève des questions liées à temps pour la pratique du football ou de soccer, l'histoire de blessure, le temps de récupération, type de blessure, les types de douleur, l'inconfort chronique et une insuffisance causés par des blessures. les résultats, il a été possible d'identifier plusieurs membres blessés dans le football est la cuisse antérieure soit 55%, le plus haut indice d'une lésion musculaire est, dans le football la plus forte incidence de lésions est la torsion à 90%, soit lésion ostéo-articulaire. Pour les professionnels qui travaillent avec le football et le soccer cette étude peut point faire attention que l'incidence des blessures, donc ils peuvent minimiser au maximum de certains types de blessures très commun dans les présentes modalités.

**EFFECTOS DE LAS LESIONES EN EL FÚTBOL Y LOS JUGADORES DE FUTSAL EN CAMPO GRANDE-MS****RESUMEN**

Este estudio tuvo como objetivo identificar las lesiones importantes efectuados en el fútbol, fútbol sala, y tratar de determinar la relación aparente con los dos modos, ya que tienen características similares en el concurso de física. El estudio de caracteres cuantitativos, en la que se compone la muestra de 15 jugadores del Club de Campo Grande Cene, categoría profesional, y que cuenta en su equipo de atletas de 20 a 32 años. Fútbol Sala en 15 atletas participaron en el estudio, con edades comprendidas entre los 18 y 37 que representa el equipo de fútbol sala UCDB. Todos los atletas firmaron TLCE (Libre Consentimiento aclaración Legislatura) tomar conciencia del importante papel que estaban desarrollando para la investigación.

Se utilizó un cuestionario que incluía cuestiones relacionadas con el tiempo a la práctica del fútbol o el fútbol, la historia de la lesión, el tiempo de recuperación, el tipo de lesión, los tipos de dolor crónico, malestar y los problemas causados por las lesiones. los resultados fue posible identificar a más miembros heridos en el fútbol es la cara anterior del muslo 55%, es decir, el mayor índice de daño muscular es, en el fútbol la mayor incidencia de lesión es el giro en un 90%, es decir, lesiones osteo-articulares. Para los profesionales que trabajan con el fútbol y el fútbol este estudio puede indicar que tengan cuidado de que la incidencia de las lesiones para que puedan minimizar el máximo provecho de algunos tipos de lesiones muy comunes en estas modalidades.

#### **INCIDÊNCIAS DE LESÕES EM JOGADORES DE FUTEBOL E FUTSAL EM CAMPO GRANDE-MS RESUMO**

Presente estudo teve objetivo de identificar as principais lesões ocasionadas no futebol e no futsal, e buscar identificar a relação aparente às duas modalidades já que possuem características semelhantes na disputa física. O Estudo tem característica quantitativa, onde a amostra foi composta de 15 jogadores do Clube Cene de Campo Grande, categoria profissional e que conta em seu elenco com atletas com idades entre 20 a 32 anos. No Futsal 15 atletas participaram do estudo, com idade entre 18 e 37 anos que representam a equipe de futsal da UCDB. Todos os atletas assinaram TLCE (Termo Consentimento de Livre esclarecimento) ficando cientes sobre o importante papel que estavam desenvolvendo para a pesquisa. Foi utilizado um questionário onde envolveu questões relacionadas a tempo de prática de futebol ou futsal, histórico de lesões, tempo de recuperação, tipo de lesão, tipos de dor crônica, incomodo e impedimento causado por lesões sofridas. nos resultados obtidos foi possível identificar que os membros mais lesionados no futebol é a coxa anterior com 55%, ou seja, o maior índice é de lesão muscular, No futsal as maiores incidências de lesão está a torção com 90%, ou seja, a lesão osteo-articular. Para os profissionais que trabalham com o futebol e futsal o estudo pode alertar para que fiquem atentos as incidências de lesões de maneira que possam minimizar ao máximo alguns tipos de lesões, muito comum nessas modalidades.