
Hand and Wrist Injuries In Combat Sports

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Editors

Hand and Wrist Injuries In Combat Sports

A Guide to Diagnosis and Treatment

 Springer

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Foreword

I always used to say that without doctors ringside any fighting show could not go on and without a proper specialist for any anatomical region a fighter should not even train.

Seriously, in game sports such as kickboxing, mixed martial arts (MMA), boxing, and other combat sports, the care of the wrists and hands is the main issue for all fighters.

For a fighter just to know that his hands have or have had a problem can affect the final result of the fight.

The protection of the hands with wrapping during a fight is useful only if, from the very beginning of the athlete's career, he has been followed by somebody who is a specialist.

This is the case for those hand surgeons and therapists that, together with the expertise of the trainer and athlete, are able to create the best care for the hands of champions in combat sports.

Among these champions are Mustapha Haida (International Sport Karate Association [ISKA] World Champion) and Giorgio Petrosyan (the greatest kick boxer of all time, as the sports press is calling him), and many others. Giorgio has broken his hands several times, but with "his" hand surgeon and hand therapist he has been able to remain at the top up to now.

Apart from the surgical and rehabilitative points of view, it is mandatory to focus on the mental side: the main weapon of any sportsperson. If you do not feel sure of your best weapon you will never get the best performance in sports. Giorgio Petrosyan has been so influenced by the care of his surgeon as to write a book on his story entitled *With my hands*.

To the men and women who take care of the good health of the fighters, we all need to say thank you, because without them we would not have such great champions, great performances, and huge shows. Let us always remember what occurs behind a fight and before getting to the fight.

Fight1, Milan, Italy

Carlo Di Blasi

Preface

The art of combat exposes athletes to injuries of all parts of the body, with these injuries sometimes even being lethal. The importance of the hand in martial arts is fundamental for an offensive or defensive grip. As a group of expert hand surgery specialists, some who have also been competitive athletes, we considered the management of these injuries, obviously not only for their treatment, but also for their prevention. We have therefore founded, thanks to the brilliant intuition of Dr Loris Pegoli, an International Society dedicated to this purpose, called the International Society for Sport Traumatology of the Hand (ISSPORTH).

Each of us, as experts, knows how difficult it is to treat these injuries, and how the non-resolution of the injury or suspension from competitive or sporting activity is dramatically not well accepted by the competitors. However, there is a moment in life in which competitive sporting activity must be limited or abandoned and it is very difficult to make this clear to the athlete. Fortunately, Mother Nature helps by giving us signals. Previous injuries now become chronic, and increasing age does not allow more than doing exhausting workouts aimed at competition, and recovery becomes increasingly longer with pauses during which sometimes there is no training. So now it is the athletes' time to move on to fun training and teaching techniques, like the Kata techniques [1], allowing them to still remain athletes (Figs. 1 and 2).



Fig. 1 Athlete still active



Fig. 2 Athlete at the end of their career

I thank all the authors of this book and the co-editors Dr Loris Pegoli and Professor Gregory I. Bain for their help in the drawing up of this book.

A special thanks to the late Elisa Geranio, who suggested this title and encouraged me to produce this book and had been supporting me, until the moment of her premature passing away, when the book was almost published.

Rimini, Italy

Riccardo Luchetti

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Introduction

Although the earliest evidence of martial arts goes back millennia, the true roots are difficult to recognize mainly because they developed in countries that have been historically isolated from the Western world for ages. Inherent patterns of human aggression which inspire practice of mock combat (in particular wrestling) are doubtlessly inherited from the prehuman stage and were made into an “art” from the earliest emergence of that concept.

Specific martial traditions become identifiable in Classical Antiquity, with disciplines such as shuai jiao, Greek wrestling, or those described in the Indian epics or the *Spring and Autumn Annals* of China.

The earliest evidence for specifics of martial arts as practiced in the past comes from depictions of fights, both in figurative art and in early literature. The oldest work of art depicting scenes of battle, dating back 3400 BCE, was the ancient Egyptian paintings showing some form of struggle. Dating back to 3000 BCE in Mesopotamia (Babylon), reliefs and the poems depicting struggle were found. In Vietnam, drawings and sketches from 2879 BCE describe certain ways of combat using sword, stick, bow, and spears.

Some early examples are the depiction of wrestling techniques in a tomb of the Middle Kingdom of Egypt at Beni Hasan (c. 2000 BCE) and pictorial representations of fist fighting in the Minoan civilization dating to the 2nd millennium BCE.

In ancient China, Yellow Emperor (2698 BCE) is described as a famous general who, before becoming China’s leader, wrote lengthy treatises on medicine, astrology, and martial arts. Literary descriptions of combat began in the 2nd millennium BCE, with mention of weaponry and combat in texts like the Gilgamesh epic or the Rig-Veda. Detailed description of Late Bronze Age to Early Iron Age hand-to-hand combat with spear, sword, and shield is found in the Iliad (c. 8th century BCE) and also the Mahabharata. In both China and India, artifacts from 2000 to 4000 years old have been found as well, with paintings of people striking possible martial arts poses. *Qigong*, one of the oldest systems that may be considered a martial art, is believed by some historians to be 5000 years old or older, originating in ancient China.

Martial arts involve intellectual concepts as well as physical techniques and have been influenced by many of the religious and philosophical systems of the East.

Martial arts were largely unknown to the Western world as far as 1945, when a few American and British veterans of World War II brought back

Japanese martial arts from occupied Japan and little by little spreading all over the world.

This short review of history shows how the art of fighting has been in the blood of human being since ever, but in the last decade the world of martial arts got more and more popular thanks to the interest of media and social networks attracting the interest of sponsors and business company making the fighter not only an athlete but also an investment, moving billions of dollars a year.

The goal of this book is to make a review of the most common injuries of combat sports, focusing on the surgical treatment, as well as on their prevention and on those elements that might help the athlete to return to fighting, such as physiological support and mental training.

The most known worldwide professionals dealing with these subjects gathered to try to give the most extensive description and support to surgeons, athletes, trainers, and professionals related to the world of martial art, strongly supported by the International Society for Sport Traumatology of the Hand (ISSPORTH). The latter is the first official International Society, founded by professionals from all over the world, whose goal is the education of wrist and hand conditions from prevention to treatment.

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