

## Athletic Injuries in Professional Sumo Wrestlers

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### Introduction

Sumo wrestling, a national sport in Japan, is very popular. A professional fifteen-day game, "Basho", is held six times a year in Japan. Recently the issue of occurrence of athletic injuries in professional Sumo wrestlers has been discussed, in view of the fact that many wrestlers abstain from participation in the games. The aim of this study was to make base-line data to compare the latest incidences of athletic injuries in professional Sumo wrestling to the former ones.

### Material and Methods

Three games among six are held at the Ryogoku Sumo Arena in Tokyo. These are called the "Tokyo Basho", and are held in January, May and September. The Sumo Clinic, an official medical supporter of the Japan Sumo Association, is open all fifteen days during the Tokyo Basho at the Arena to provide first aid for injured wrestlers and audience members. The materials in this study were all the wrestlers who came to the Sumo Clinic during the three games held from May 2002 to January 2003. The number of patients, estimated as the number of injuries, and the location of the injuries were investigated. Injury ratio (number of the injuries/number of the wrestlers) and injury index  $\{(number\ of\ wrestlers \times number\ of\ matches / 2) / number\ of\ the\ injuries\}$  were also defined and investigated. We compared these data to the same series from five years ago.

### Result

The number of injuries was 9.7 / day average, (10.2 / day), injury ratio; 0.14 (0.13), injury index; 27.1 (25.0). The data sets indicated that this time (last time) correspondingly, and all of these differences were statistically not significant. The location of the injuries from this recent study had a similar tendency as those of the previous study, i.e. (pelvis and lower extremities) > (shoulder girdle and upper extremities) > (head, neck and trunk).

### Conclusion

From the results of this study, we could not find the difference in numbers or location of injuries in professional Sumo wrestlers during these five years. Further analysis will be needed of the characteristics of each wrestler, such as age, height, weight, body fat ratio, etc.

**Key word:** Sumo wrestling, Athletic injuries, Professional sports