Conferencia:

“Estudio de los mecanismos de las lesiones y de su prevención mediante análisis de vídeo”

Ponentes:

Dr. Tron Krosshaug

y

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Curriculum Vitae

TRON KROSSHAUG M. Sc

EDUCATION:

Norwegian University of Sport and Physical Education, Oslo, Norway,1997
Cand. Mag, biomechanics,

Norwegian University of Sport and Physical Education, Oslo, Norway, 2000 M.Sc, biomechanics,

University of Oslo, Oslo, Norway, 1997-2001
Courses in dynamics, robotics, Kalman filtering, numerical methods and differential equations

Norwegian School of Sport Science, Oslo, Norway, Aug. 2006 PhD

LIST OF PUBLICATIONS:

M.Sc Thesis:

T1. Krosshaug, T. Sprint Running – A 3D inverse dynamic analysis. The Norwegian University of Sport and Physical Education, 2000

PhD Thesis:

T2. Krosshaug, T. Video analysis of the mechanisms for ACL injuries. Oslo Sports Trauma Research Center, Norwegian School of Sport Sciences, Oslo, Norway, March 2006

Original articles:

1. Krosshaug T, Bahr R. A model-based image-matching technique for three-dimensional reconstruction of human motion from uncalibrated video sequences. J Biomech. 2005 38(4):919-29
2. Krosshaug T, Slauterbeck J, Engebretsen L, Bahr R. Biomechanical analysis of ACL injury mechanisms: three-dimensional motion reconstruction from video sequences. Scand J Med Sci Sports. (In press)
3. Krosshaug T, Nakamae A, Boden B, Engebretsen L, Smith G, Slauterbeck J, Hewett TE, Bahr R. Estimating human 3D kinematics from video sequences – assessing the accuracy of simple visual inspection. Gait Posture (In revision)
4. Krosshaug T, Nakamae A, Boden B, Engebretsen L, Smith G, Slauterbeck J, Hewett TE, Bahr R. Mechanisms of ACL injury in basketball – video analysis of 39 cases. Am J Sports Med (In press)
5. Bahr R, Krosshaug T. Understanding the injury mechanisms – a key component to prevent injuries in sport. Br J Sports Med 2005;39(6):324-329.
6. Krosshaug T, Andersen TE, Olsen OE, Myklebust G, Bahr R. Research approaches to describe the mechanisms of injuries in sports: limitations and possibilities. Br J Sports Med 2005;39(6):330-339.

Curriculum Vitae

DÑA. GRETHE MYKLEBUST

Grethe Myklebust PT, PhD is a PostDoc fellow at the Oslo Sports Trauma Research Center. She is also authorized as Specialist in Sports Physiotherapy by the Norwegian Physiotherapy Federation and as Sports Medicine Physical Therapist (Idrettsfysioterapeut FFI) by the Norwegian Society of Sports Physiotherapy.

She serves as team physical therapist for the national teams in beach volleyball. Earlier served as team PT for the female national teams in team handball and soccer for ten years. She has also worked as PT at the Olympic games in Seoul in 1988 and Sydney in 2000. Past vice president of the Norwegian Society of Sports Physiotherapy. Past member of the International Handball Federation Medical Committee.

Her main research area is related to team handball and soccer injuries especially lower extremity injuries and injury prevention.

She has competitive experience at top national level in team handball.

Despite of the many benefits of physical activity, sports participation also entails a significant risk for injury for the elite athlete, as well as the recreational athletes.

Studies from Scandinavia document that sports injuries constitute 10-19% of all acute emergency room injuries.

The most common acute sport injury is ankle contusions, which can result in disability and may lead to chronic pain or instability. Another injury that has become more frequent during the recent years is knee ligament injuries, especially the anterior cruciate ligament (ACL) injury. ACL injuries are serious and give pain and disability for the athletes in the short run, and an increased risk of early osteoarthritis in the long run. Hamstrings injuries are another common problem in many sports, especially those involving acceleration and maximal sprints. This injury is for instance the most common of all in Norwegian elite football, and typically leads to significant time loss, and may even be career-threatening.

With the increase of both the numbers and severity of injuries, the need for injury research studies has become evident. When an injury type have been found to be common and severe, the next step is to map risk factors and injury mechanisms, before preventive measures can be developed and implemented

Prevention of this injury is not only important for the athlete, but also for the society since these injuries requires lots of money and efforts from the health system. There has been an increased focus on injury prevention the last years, at least partly spurred by the concern over ACL injuries among female athletes. Recent studies show that it may be possible to reduce the incidence of knee and ankle injuries among adults and adolescents, using various training programs.The talk will give an overview on the advances in this field, and give examples of preventing studies of ankle, knee and hamstrings muscle strain injuries. The practical implications of the prevention programs will be highlighted.