

Shoulder girdle sports traumatology – highly specialised sports orthopaedics at the Technical University of Munich

Shoulder girdle sports traumatology mainly affects young (or young-at-heart), active patients and requires sophisticated diagnostics and innovative treatments, as both sporting and professional demands increase.

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The renowned Sports Orthopaedics Department at the Technical University of Munich, headed by Professor Andreas B. Imhoff, provides highly specialised, state-of-the-art shoulder surgery based on the findings of the latest medical research (58th annual conference of the Association of South German Orthopaedists, *Orthopaedic News* 05/2010). The key objective here is to offer swift professional and physical rehabilitation, enabling people to return to work and to a normal life free of pain. The department's multilingual team of experts focuses not only on providing comprehensive, long-term orthopaedic and traumatological care to professional and elite athletes, but also on offering comprehensive, end-to-end treatment to international guests – from initial diagnosis right through to customised rehabilitation based on physiotherapy and physical therapy. Up-to-the-minute imaging methods, such as MRI, help make diagnosis as swift as possible. First consideration is always given to the least aggressive form of therapy, which is usually physiotherapy, even though this invariably requires a longer period of treatment.

Traumatic rotator cuff tears

Tears in the supraspinatus (SSP) and infraspinatus (ISP) tendons are due to a traumatic, i.e. suddenly occurring event in 50 per cent of cases. As a group of several muscles, the rotator cuff between the upper arm and shoulder is where a number of muscles are attached. It is there because the

shoulder joint needs to be extremely flexible, hence its ball-and-socket arrangement that allows the upper arm to be moved in almost all directions. Nowadays, in situations where high professional and/or private physical demands on the patient cause the rotator cuff to tear, the remedy of choice is immediate surgery. In addition to the plethora of open reconstruction techniques, a range of more technically advanced arthroscopic procedures is increasingly coming to the fore. In these keyhole procedures, an instrument mounted with a camera looks into the joint and the defective area is repaired as necessary. The department always uses the latest methods, such as the speed-bridge technique in which minor tears in the rotator cuff are fixed and any pre-existing damage is repaired at the same time. If the tendon on the underside of the shoulder blade ruptures (subscapularis tendon – SSC), a relatively seldom occurrence, the injury is frequently missed despite it having a specific diagnosis.

Acute separated shoulder

Accidents often result in injuries to the acromioclavicular joint, which holds the collarbone and acromion together. When clinical and radiological confirmation of the diagnosis is taking place it is essential to look out for any commonly observed concomitant injuries, such as SLAP lesions (injuries to the labrum of the shoulder), fractures or damage to the rotator cuff. If the acromioclavicular joint is unstable, it is advisable for this to be treated promptly by surgery, as clinical studies have revealed that delayed treatment leads to a significantly worse outcome. The multi-directional stability of the acromioclavicular joint is based on the interaction of various structures, including a number of ligaments, involved both in horizontal and vertical movement.

The joint's physiological biomechanics can be restored immediately and permanently using an arthroscopic surgery technique that was newly developed by the head of the department and has since been routinely deployed.

Osseous avulsion of the glenoid rim (Bankart fracture)

Bankart fractures typically follow on from shoulder separations, i.e. when the upper arm is separated from the shoulder joint, a rupture of the shoulder's anterior glenoid lip. The use of arthroscopic, minimally invasive procedures to treat Bankart fractures enables concomitant injuries to be treated directly. Stabilising the often small fragments by means of absorbable suture anchors introduced via keyhole surgery performed by Professor Andreas B. Imhoff is a relatively non-aggressive and long-lasting treatment.