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**IOC Consensus Meeting on serious knee injuries in children**

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Date: Friday, 13 October 2017  
Place: IOC Headquarters, Salle Coubertin, Lausanne, Switzerland  
Organiser: IOC Medical and Scientific Department

Participants: **IOC Medical and Scientific Commission Chair**  
Prof Dr Uğur Erdener

**Consensus Co-Chairs**

**IOC representatives**

Dr Richard Budgett, IOC Medical & Scientific Director  
Prof Lars Engebretsen, IOC Medical & Scientific Department – Injury expert  
Dr Torbjorn Soligard, IOC Medical & Scientific Department – Injury expert  
Cherine Touvet-Fahmy, IOC Medical & Scientific Department

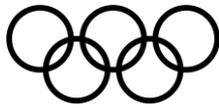
**Guest Experts**

Romain Seil, Luxembourg  
Mininder Kocher, USA  
Rob Laprade, USA  
Clare Ardern, Sweden  
Guri Ekås, Norway  
Nick Mohtadi, Canada  
Moises Cohen, Brazil  
Bruce Reider, USA  
Allen Anderson, USA  
Ted Ganley, USA  
Lyle Micheli, USA  
Jon Karlsson, Sweden  
Rainer Siebold, Germany  
Franck Chotel, France  
Magnus Forssblad, Sweden  
Håvard Moksnes, Norway  
Erik Witvrouw, Belgium  
Holly Silvers-Granelli, USA  
Mike McNamee, UK  
Justin Roe, Australia  
Hege Grindem, Norway  
Bert Mandelbaum, USA

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Summary:

The number of serious knee injuries i.e anterior cruciate ligament (ACL) in children is rising. Many surgeons and sports medicine physicians see this daily in their clinics. These are active children doing a variety of sports. Across the globe, many of these children do not see an orthopaedic



surgeon and the injury goes undetected. However, in the developed world, many are referred to orthopaedics and they often undergo surgery.

No agreements exist on prevention and treatment methods i.e. surgery or nonoperative and rehabilitation. There is also limited information on the psychological impact of such injury on the children. At the June 2017, International Society for Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS) meeting in Shanghai, People's Republic of China, an expert group agreed that the paediatric ACL re-injury rate after the various surgical procedures was about 25 per cent.

In short, we do not know what happens to children who rupture their ACL. Do they grow up like their friends, doing sports or prioritizing education and going on with their life? Or does the injury and treatment change their lives?

We already have research data on meniscal and cartilage injury as well as additional ligament tears. Although disagreements between groups exist, it appears there are as many meniscal tears in children who have surgical reconstruction as there are in children who choose nonoperative treatment of the injury. Growth disturbances occur after surgical treatment, but these are rare. While we seem to have good technical ability to deal with these challenges, the injury still seems to have a major impact on the child. Very few, if any, of the children become high level athletes in pivoting sports. We lack information on their quality of life and premature osteoarthritis (OA) development when they turn 25.

In October 2017, the International Olympic Committee (IOC) convened an international expert group of surgical leaders from North and South America, Europe and Oceania and expert physiotherapists who specialise in treating and preventing these injuries. The meeting resulted in an international consensus statement that should set the stage for future research and points out the current knowledge in this field.