IIHF medical study released

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Insight on flexible boards, head injuries

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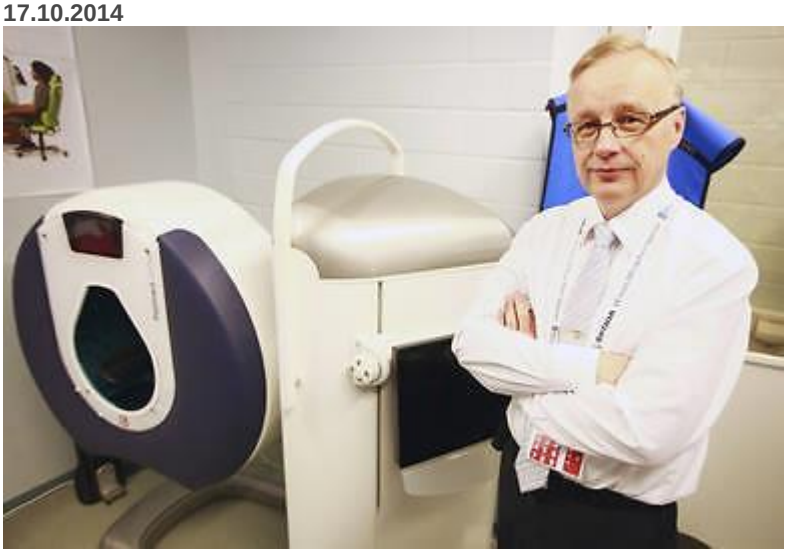

Dr. Markku Tuominen is a member of the IIHF Medical Committee. Photo: Jeff Vinnick / HHOF-IIHF Images

ZURICH – A seven-year study on player injuries at IIHF Ice Hockey World Championships and the Olympic Games was recently released by the IIHF Medical Committee.

The study analyzed 528 recorded injuries from 2006 to 2013 that occurred in all divisions of the men's World Championship program, the 2010 Winter Olympic Games, and the qualification tournaments for the Vancouver 2010 and the Sochi 2014 Games.

Among the notable findings made by the study was that the number of injuries sustained during international ice hockey competitions is relatively high, but that certain arena characteristics, such as flexible boards and glass, appeared to reduce the risk of injury.

While nearly 70 per cent of injuries occurred away from the boards (68.5%), of all the injuries sustained by players shoulder injuries were the most common (27.3%), with over half of those resulting from contact with the boards (63.2%).

It was found that there was a 29% lower risk of an injury at the arenas where flexible boards and glass were used compared to arenas with traditional boards and glass. There were fewer concussions when flexible boards and glass were used instead of traditional boards and glass, along with a noticeable trend towards a decrease in all other types of injuries.

"This was the first study in which effect of flexible boards and glasses to the injury risk were investigated," said Medical Committee member Dr. Markku Tuominen. "Of course we expected that flexible boards and glasses decrease the risk of injury, but it was still very interesting to find that the total injury rate fell 29% when flexible boards and glasses were used. Especially also that flexible boards and glasses decreased shoulder injuries by 60%, which was also statistically significant."

The majority of concussions occurred without board contact (55.8%). Every 10th player diagnosed with a concussion returned to play during the same game.

"Of the players diagnosed with a concussion, 11.5% returned to play in the same game," said Tuominen. "The majority of concussions occurred before the 2012 Zurich Consensus Guidelines, which do not allow return to play in the same game. In future our target is that if there is a doubt that a player has concussion, he or she doesn't come back to the same game anymore."

During the study period, 528 injuries in 511 incidents were reported in 844 games. Additionally, 27 injuries occurred during team practices. Injuries involved the head and face in 210 cases (39.8% of game injuries), the lower body in 162 cases (30.7%), the upper body in 115 cases (21.8%), and spine or trunk in 41 cases (7.8%).

The study concluded with a statement underlining that the knowledge of the risk factors and mechanisms of ice hockey injuries are needed to initiate systematic injury prevention, and that further research is necessary to determine if facial injuries in ice hockey can be reduced by enforcing existing rules or mandating full facial protection. Possible rule changes should also be considered to reduce risk of concussion.

“It is not very easy to find new rules which reduce the risk of concussion without making big changes to the game also,” said Tuominen. “For example: Shall we slow down the speed of players? Can we decrease number of hits chancing the size of the rink? What is clean hit? These are not so easy questions. Despite of that our target must always be that the best players can play all the games.”

“We need more discussion how to make our game safer. All the rules, equipments and attitudes must support that. Flexible boards and glasses are one part of it, but we need more ideas from all the people who work in ice hockey. Now we have knowledge from the game to which we can compare the results in the future.”

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