

Posture Plus

# HONG KONG FOOTBALL CLUB FIELD HOCKEY SECTION INJURY MONITORING REPORT 2009-2010 SEASON

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The following report has been constructed using data obtained from hockey club section members at training sessions over the 2009-2010 field hockey season.

The following areas will be presented:

- Gender distribution of injuries
- When the injuries occurred
- The distribution of the injuries according to body area
- The severity of the injuries
- Injuries in the first and then second half of the season
- Total number of injuries in the 2009-2010 season
- And finally a comparison between the first and second half of the 2009-2010 season

A copy of all of the above information presented in chart form is attached.

#### **GENDER DISTRIBUTION OF INJURIES**

The number of males compared to females who presented with injuries in training were 18 males compared to 24 females. (See chart 1)

#### **WHEN INJURIES OCCURRED**

It was almost equally as likely for an injury to occur at training as it was in a game. A small number (3/43) were either not sure when the injury occurred or had a pre-existing problem. (See chart 2)

#### **DISTRIBUTION OF INJURIES**

The distribution of injuries according to area is overwhelmingly the lower limb with 34 out of the 43 recorded injuries. (See chart 3)

#### **SEVERITY OF INJURIES**

The severity of presenting injuries ranged from mild – able to return to play, moderate unable to return to play immediately and severe – unable to return to play for greater than one month. The majority of injuries - 58% were moderate in their severity, which meant that over 20 players were unable to return to training and playing hockey for up to 4 weeks over the course of the season.

There were three injuries, which forced the end of the season for the players involved – 2 were ACL ruptures and one a hamstring injury that was caused by a chronic low back injury.

(See chart 4)

## **INJURIES IN THE FIRST HALF OF THE 2009-2010 SEASON**

The presenting injuries ranged from sprained ankles, Achilles tendonitis, contusions, knee pain, muscle strains (the majority to the lower limb), ruptured ACL and rotator cuff tear.

The most common injuries were sprained ankles 5/21 and strained calf muscles 5/21. (See chart 5)

## **INJURIES IN SECOND HALF OF 2009-2010 SEASON**

The most common injury presentation in the second half of the 2009-2010 season was strained hamstrings (7/22) – there were no reported sprained ankles or strained calf muscles. (See chart 6)

## **TOTAL NUMBER OF INJURIES IN 2009-2010 HOCKEY SEASON**

The most common presenting injury over the entire season was strained hamstrings 7/43, followed by sprained ankles 5/43.

## **COMPARISON BETWEEN FIRST HALF AND SECOND HALF 2009-2010 HOCKEY SEASON**

The most obvious difference between the first half and second half of the season was the number of sprained ankles and strained hamstrings.

In the first half there were five ankle sprains and no hamstrings strains, in the second half there were no ankle sprains and seven hamstring strains.

## **CONCLUSIONS:**

Compared to previous reports, there was more data collated from a wider variety of teams – both male and female from A – H teams. Posture Plus provided two physiotherapists for one hour each for the Tuesday and Thursday training sessions. Injuries may have been unreported if the member did not make it to training.

Reviewing the injuries separately –

**Sprained ankles** – it is most interesting to note that there was no ankle sprains reported in the second half of the season whereas it was the most common injury in the first half. This may indicate that ankle proprioception and dynamic balance training should be incorporated into the preseason and early season preparations. There is an outline on the HKFC hockey section website of balance and dynamic balance exercises specifically for ankle joint sprain recovery – these could easily be added into the warm-up or training. Of the seven ankle sprains reported, five were moderate and two were moderate to severe which indicates that the players were not able to return to play for between four-eight weeks.

**Achilles tendonitis** – There were two cases reported in the first half of the season only and both were moderate meaning reduced training and availability for games. This indicates that more specific Achilles stretches should be incorporated before, during and after training and games.

**Contusions** – A foot contusion was due to ball contacting the big toe. The shoe was not appropriate for hockey – a running shoe. The member has since changed shoes.

The two thumb contusions were caused by ball contact and both members did not wear gloves. It is strongly advised that for all members wear gloves – at least on their right hand.

**Stitches** – Only one incident occurred which required stitches to the mouth – the injury was caused by a ball deflection and the member was wearing a mouth guard.

**Knee pain** – Only three members complained of mild to moderate knee pain most likely due to muscle imbalances and poor lower limb alignment. They were shown specific stretches and muscle self-massage.

**Muscle strains** – This group produced by far the biggest representation of injuries over the entire season. The two most common muscle groups that were strained were hamstrings (7/43) and calf (5/43) and the majority of injuries were moderate to severe.

The calf and hamstring complex can be put under stress if the muscles themselves are tight or overused – training /playing to the point of fatigue, if the lower back is stiff (very common in hockey players due to poor spinal position) or due to neural tightness. The majority of our section has sedentary jobs and this may also be a contributing factor.

**Rupture** – there were two club members who tore their Anterior Cruciate Ligament (ACL) ending their season. Both resulted in surgery and will require at least 6 months rehabilitation. In one case there was a partial tear already. While it is an uncommon injury, it is debilitating and it takes a considerable time to recover whether or not surgery is preformed.

**Tear** – Three section members presented with partial tears to the rotator cuff of the shoulder – all were moderate in severity and two occurred in games and one was from an unknown cause or incident.

## **SUGGESTIONS**

- In pre-training – The onus is on players to remember their specific problems from last season and talk to the Physiotherapist about what can be done to try and possibly avoid the same problems recurring.
- Looking at the data collected ankle proprioceptive exercises should be incorporated into in preseason training to prevent ankle sprains.
- Make section members aware that there is a detailed summary of how to treat ankle sprains on the section website and that stretches will soon be there as well. In order to prevent problems they should go through the stretches and find out where they have problems and focus on those specific areas themselves.
- Lower limb stretches starting from the plantar fascia, gastroc/soleus, hamstrings, and low back need to be incorporated into the training/games in order to prevent the high incidence of muscle

strains. Also is there a possibility of the stationery bike being used on the dugout to keep the muscles warm in the Winter?

- Add in the neural glides/stretchers for the sciatic nerve\* into training and games.

\*A previous study I did many years ago found that while subjects with knee pain tested positive for calf and hamstring tightness – they also tested positive for neural tension. My proposed theory was that due to similar testing postures, a lot recorded tightness perceived as muscle tightness may in fact have a neural component.

- There are several injuries that may have been prevented or less severe due to poor kit – specifically wearing gloves and appropriate footwear. Section members should be reminded that the correct kit should be worn at all times – you can't protect against deflected balls or contact with sticks.

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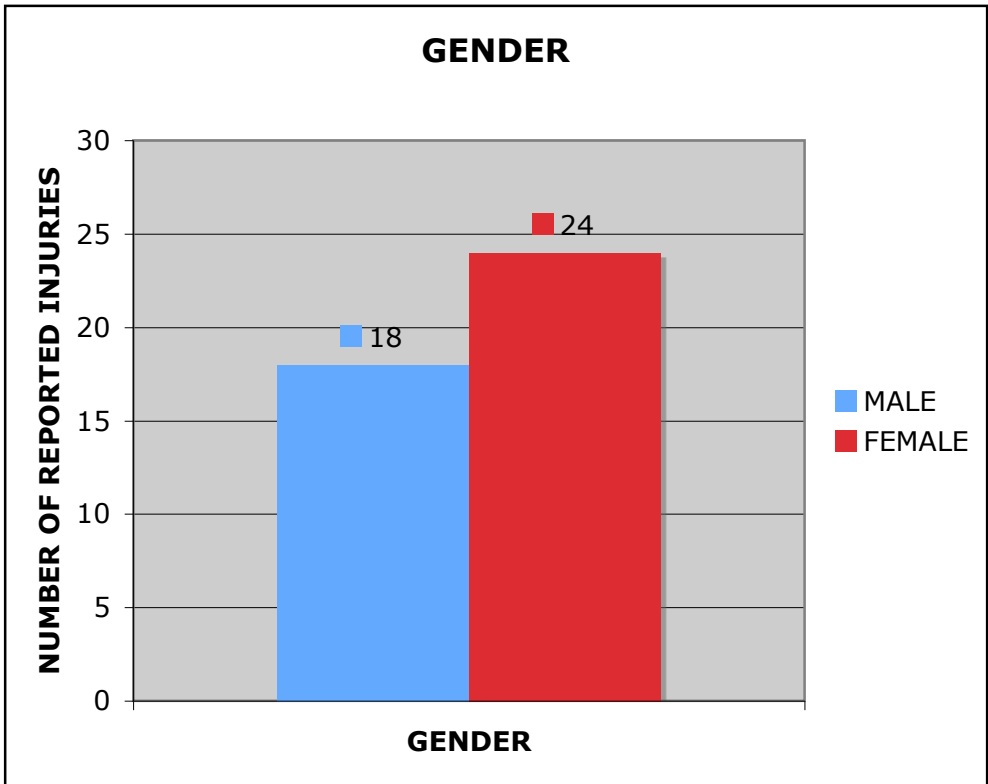


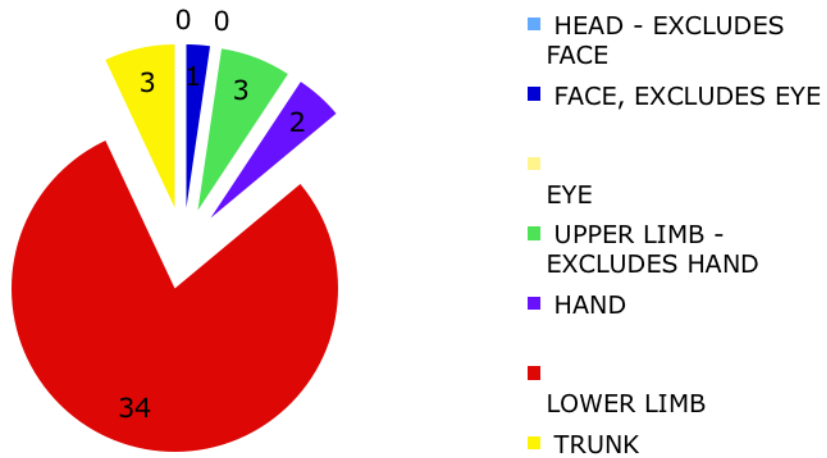
Chart 1



Chart 2

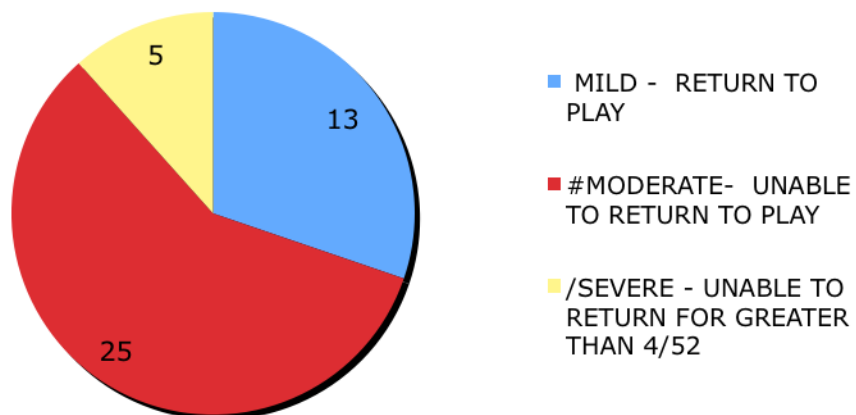
### DISTRIBUTION OF INJURIES

Chart 3



### SEVERITY OF INJURIES

Chart 4



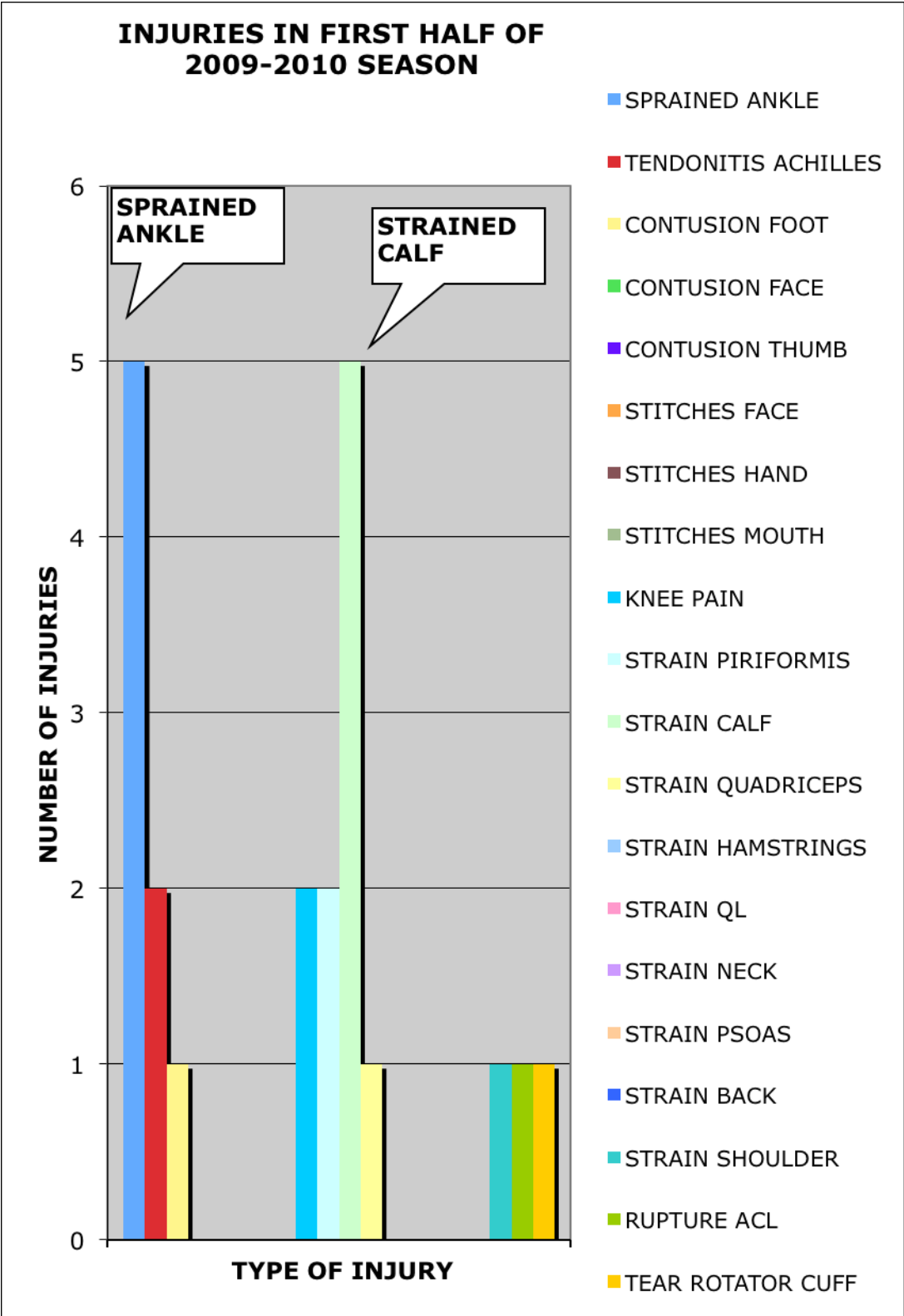


Chart 5



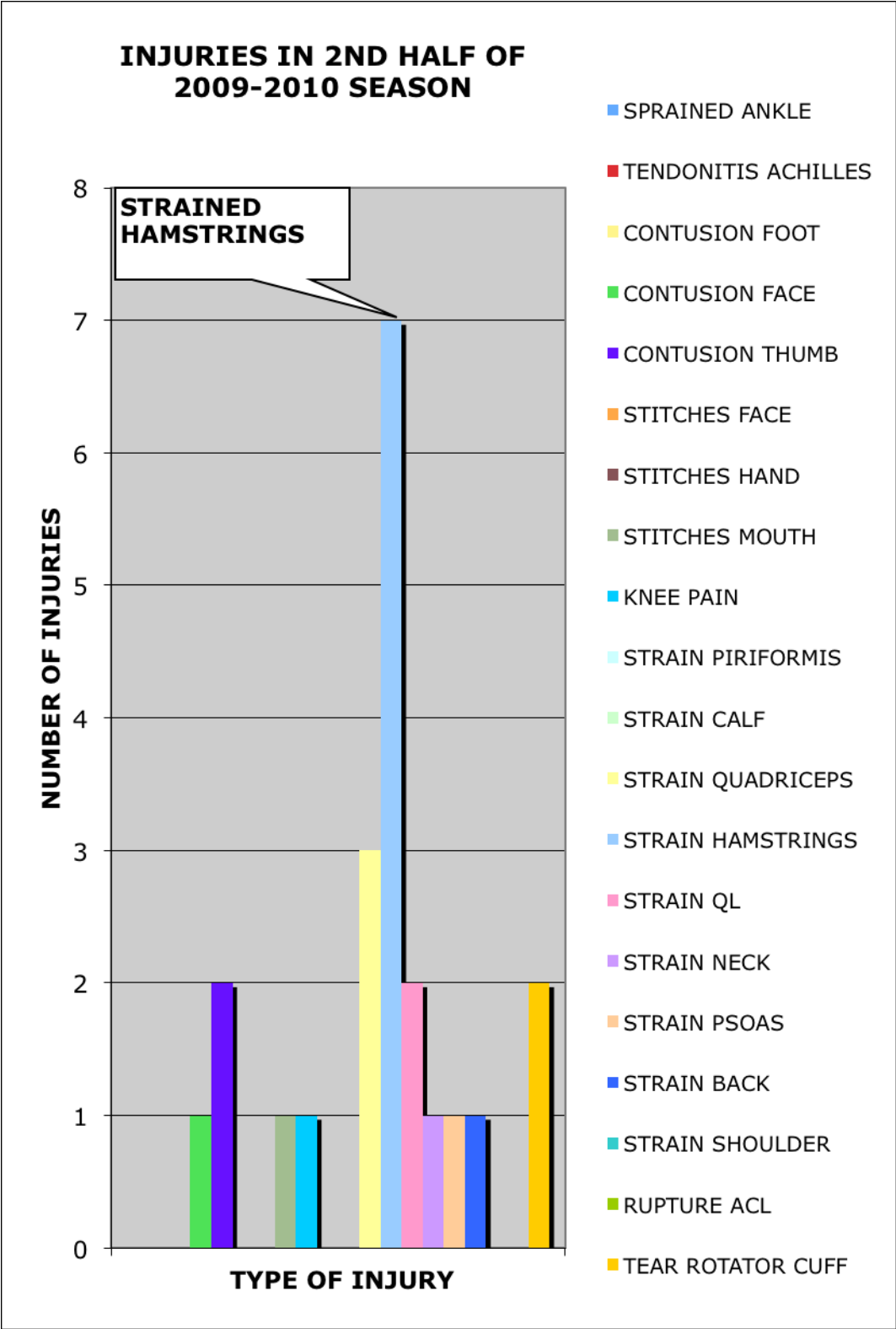


Chart 6

End of Report