



# Medical Perspective

# Medical Issues

— [ Injury prevention

— [ Injury treatment

— [ Medical care standards

— [ Fitness for Competition

— Concussion

# Injury Prevention

— [ **FATALITY PREVENTION**

— [ **ROTATIONAL FALL PREVENTION**

# Injury Prevention - How?

— [ Deformable Structures

— [ Protective Equipment

— [ Course Design

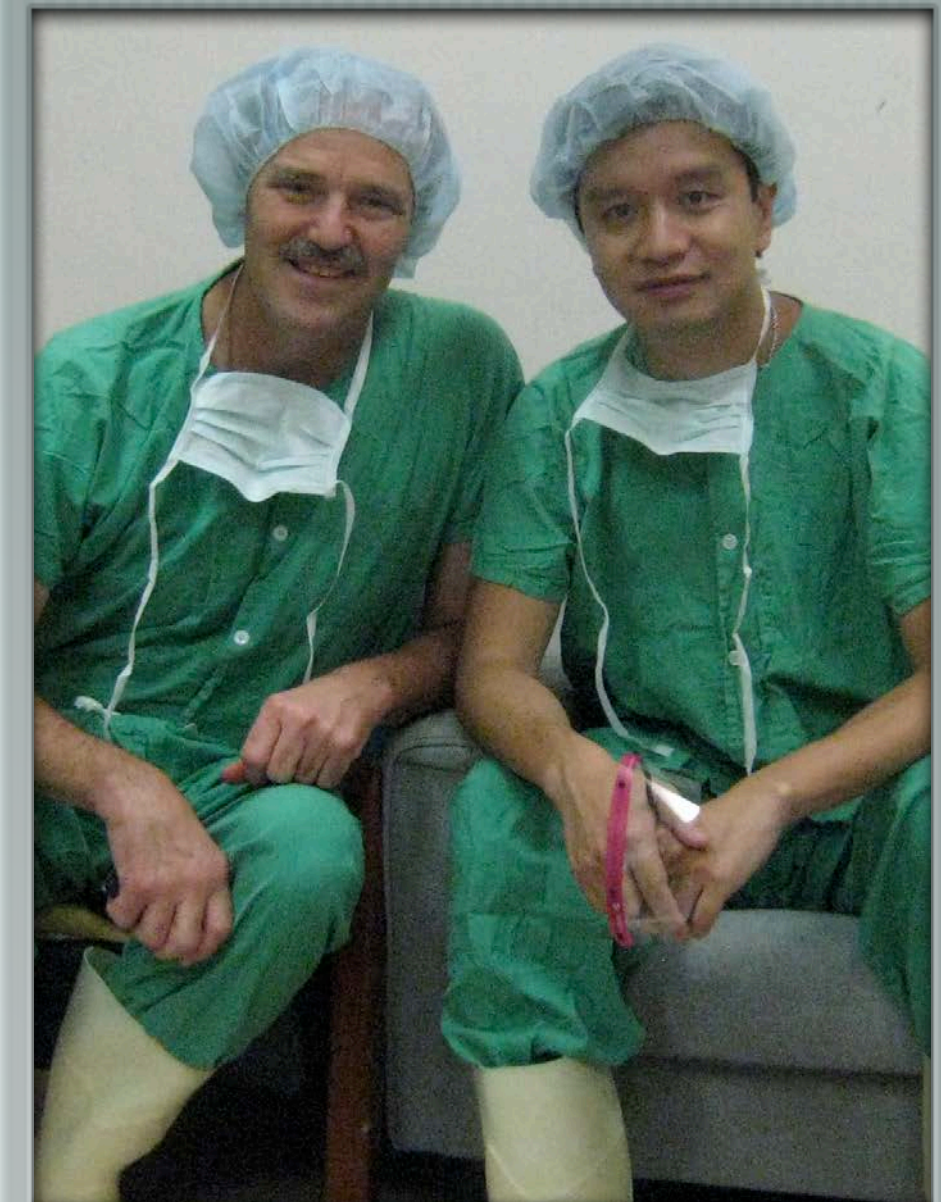
— [ Rule changes

— [ Training riders to fall



# Injury Treatment

— [ Beyond the scope of this presentation



# Medical Care Standards

— [ Event Organizer Issues

— [ Can discuss if time allows

# Fitness for Competition

—— [ Rider and Horse

—— Mental

—— Physical

# Mental

- [ Impaired judgement
- [ Dangerous riding
- [ Overconfidence and inadequate training
- [ **CONCUSSION**



# Physical

- [ Injury

- fractured clavicle, wrist, ankle, etc.

- [ Medical condition

- heart problem, pregnancy, etc.

# Fitness for Competition

- [ Pre-participation Clearance

- Pre-participation exam

- [ Post Injury Clearance

- post injury evaluation

# Fitness for Competition

- [ **Medical Clearance**

- **MUST BE by treating physician**

- **Medical liability**

- **Records and expertise in that condition or injury**

# Fitness for Competition

— [ Despite treating physician medical clearance,

— [ Site physician should be aware of ability to declare athlete unfit for participation at the event they are staffing; and require additional medical evaluation prior to participation

# CONCUSSION

# International Symposium

— [Concussion

— [in Sport

— [Vienna 2001

— [Prague 2004

— [Zurich 2008



# Symposium Goals

- [ Publish Agreement Statement
- [ Develop management protocol
- [ Clinical assessment guide

# Definition

— [ Sport concussion is:

— [ “a complex  
pathophysiological  
process affecting the  
brain induced by  
traumatic biomechanical  
forces”

# Sport Concussion

- [ direct or indirect blow

- [ rapid onset of short lived impairment

- [ spontaneous resolution

- [ functional rather than structural changes

— [ **SYMPTOMS** - somatic (headache), cognitive (feeling in a fog), emotional (lability)

— [ **PHYSICAL SIGNS** - loss of consciousness, amnesia

— [ **BEHAVIORAL CHANGES** - irritability

— [ **COGNITIVE IMPAIRMENT** - slowed reaction times

— [ **SLEEP DISTURBANCE** - drowsiness

# Grading Scales

— [ Simple Concussion

— [ Complex Concussion

# Simple Concussion

- [ most common type

- [ progressive resolution  
7-10 days

- [ rest till symptom free

- [ graded return to sport



# Complex Concussion

— [ Severe symptoms:  
convulsions, LOC

— [ persistent symptoms

— [ recurrence of symptoms  
with exercise

— [ multiple concussions

# Assessment Tools

- [ **NEURO IMAGING** - under development

- [ **OBJECTIVE BALANCE ASSESSMENT**

- [ **NEUROPSYCHOLOGICAL TESTING**

- pretest is most valuable (IMPACT)

- **GENETIC** - under development

# Return to Play

— [ Physical and Mental rest

— [ light aerobic exercise

— [ return to basic riding

— [ graded return to  
competition

# SCAT



**Sport  
Concussion  
Assessment  
Tool**

# DATA

- [ Injury reports

- medical detail is critical

- [ Medical releases

- [ Periodic critical review

- [ National Medical Officer

**Thank You**