

Requests to the ring physician

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Is Boxing dangerous?

Hazard potentials

- Infections
- Illnesses
- Acute injuries
- Permanent injuries

Is Boxing dangerous ?

International Injury Chart (2004)

Deaths during Boxing 2004

Riskfactors

- Endogenous factors of the boxer
 - genetic factors (apolipoprotein E4)
 - congenital anomalies (cardiac defects, aneurysms)
- Risk factor: by the opponent
 - Hepatitis B/C
 - HIV
- Blow impact injuries

Riskminimisation through...

■ Prevention

- Licensing of the Boxer
- Medical examination on day of bout
- Competition suspension and follow up medical examination

■ Delimitation of injuries:

- Recommendation to stop the bout
- Sport and emergency medical care at/in the ring

■ Medical care after the bout

Licensingprocedure

■ First Licensing:

■ Extensive medical suitability check up:

- Serology

- Vaccination Hepatitis B

- Head MRI (better MRA)

■ Yearly follow up Check up

■ Withdrawal of Licence:

- Age limitation?

- Exclusion of „Poor Performers“

Examination at day before bout

- Check of the presented medical certificates
- Short anamnesis and detailed examination of the partly dressed athlete:
 - hands, thorax, e.g. injuries
 - Cor, pulmo, nose- throat-ear
 - Neurological status
- Courage to suspend the athlete

Competition bans

- ... can be/must be recommended by the ring physician
- ... are after severe hits and technical k.o.'s mandatory to recommend.
- ... should be after a long time ban restricted with a follow up medical examination.
- ... are to be meaningful at or during the time of the suspension (no early start to the training and sparring)

Delimitations of injuries

- Evaluation of cuts to the head
 - Mandatory to stop the bout are cuts:
 - To the under eyelid
 - Vertical cuts to the upper eyelid
 - Optional to stop the bout are cuts:
 - Heavy bleeding
 - Those injuries which limit the view
- Estimation of severe hits to the head

„Avoid the second hit“ Fisher et al.

Experiments on mice:

Single hits to mice heads do not lead to morphological disorders on nerve cells

Multiple hits with the same strength in short time intervals lead to nerve cell damages

Explanation: If a cell is hit during the stadium of reparation, she is not able to recover from structural damages

Lancet 1999 (12) 865-92

Medical care at the day of bout through the ring physician

At the day of the bout the ring doctor is responsible for medical problems and questions of the athlete, this requires

- Medical authority
- Standard medical equipment
- Knowledge of the IOC doping list

Medical authority at the ring:

■ Infrastructure:

■ Arrangement about emergency plan with paramedic on duty:

- Personal introduction
- Define emergency exits and present them to the organizer
- Agree hand signs with paramedics
- Information about the nearest hospital (neurosurgical unit)

Medical authority at the ring:

■ Equipment:

■ One emergency suitcase at the ring:

- Ambu bag

- Intubation equipment

- Infusions

- Emergency medicine

 - Suprarenin, Atropin, Cordarex, Ketanest, Dormicum, Hypnomidate, Pantolax, Luminal, Diazepam

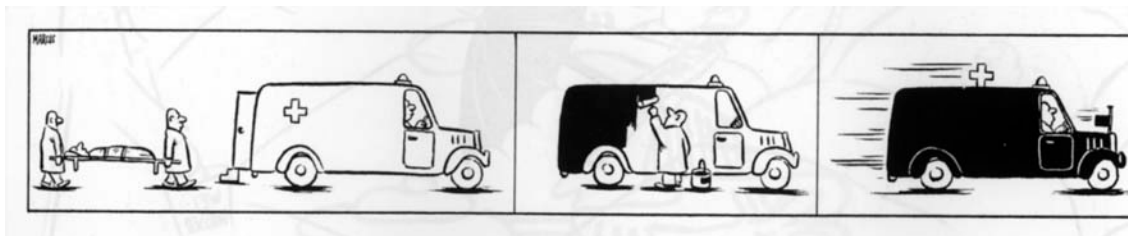
- Eye lamp

Medical authority at the ring:

- Ring physician

- Experience and every day practice in airway management

- Consider and be courageous enough to treat in the ring



Care after the bout

- Take care of the athlete at least 120 minutes after the fight:
 - Mandatory viewing of boxers who had technical k.o.'s., k.o.'s or multiple severe head hits
 - Offer possible wound treatment to the boxer
 - Possible admission to hospital (accompanied)

Severe cerebral traumas in boxsport become obvious and symptomatic after the fight

Shriner et al. (Am J Sports 2003 (18) 73-80):

Retrospective study of 30 Boxers with operative relief
of epi/subdural bleeding

Timeschedule of cerebral symptoms:

In the ring:	4	unconsciousness
< 60 min a. bout:	13	headache, Nausea
< 120 min a. bout:	10	headache, Nausea
> 120 min a. bout:	3	dimming of consciousness

Own experiences

■ What happened:

- multiple cuts
- few metacarpal fractures
- eight shoulder luxations
- one scull fracture without neurological symptoms
- ten fractured jaws
- one subdural haematoma becoming symptomatic 90 min. after bout and needed operation
- four orbital fractures
- one sternum fracture
- several nose bone fractures
- one rupture of the patellar ligament

Requirements to a ring physician in Germany (BDB)

- Commitment
- Presence before, during and after the bout
- Sportsmedical authority
- Emergency medical authority:
 - England: Anaesthetist (Requirement of WBC)
 - Germany: Licence of Emergency Medicine

Outlook

- Boxing stays dangerous and has the potential to cause deathly injuries
- The responsibility of what happens to the boxer carries the opponent. The responsibility of what stays the results carries the ring physician
- An unprofessional medical care at the ring can cause deathly results and potentially means the banishing of boxing

Thank You!