Review Questions MiniModule 2: - solutions in italics

1. What is the difference between a dislocation and subluxation?
   Both are temporary displacements of joint surfaces of a bone. Subluxation is only partial loss of contact; dislocation is full loss of contact.

2. Describe and explain the circle of prevention.
   There are 4 components given in sketch on the left. The idea is to start with epidemiological assessments of injury numbers/distributions (example knee injuries in soccer: they are about 2\textsuperscript{nd} most common; numbers varying between studies. A recent study from Denmark shows 36\% ankle and 17\% knee injuries). Problematic is the establishment of the injury mechanism. Generally, it is suspected that stopping and turning movements are situations with injury potential. It seems that the risk is higher on, e.g., artificial turf. If played on artificial turf a possible intervention would be to compare different types of turf. It would then be required to compare groups playing on different turfs and count how injuries develop in these groups, ideally over a longitudinal study.

3. Describe and explain the Meeuwisse-Injury Model.

4. Which are the two main groups of risk factors used in the injury models listed in the lecture notes?
   extrinsic/external/environmental vs. intrinsic/internal/personal (the literature uses these terms interchangeably but the same is meant respectively)
5. List and briefly explain all the factors in each of the risk factor groups of Question 4. Use one example per risk factor.

*they are listed in the slide with the injury model (Question 3)*.

6. Which strategies can be used to characterize the severity of an injury? Which one of these is most commonly used (ok, sorry that is something we did not clearly state in the lecture but you may suggest one)?

*In epidemiological studies concerning the injuries itself and the impact on the player it is often looked at absence from training and competition (1 day, 1 week, 1-3 weeks, more than 3 weeks)*.

7. Even though it is hard to derive general statements from epidemiological studies we have identified two joints which are most commonly injured in sport. Which are these (we only discussed one of them in this lecture)?

*these are the ankle and the knee joint – of course this will depend on the sports discipline but this is the general idea*

8. Give the definition of Epidemiology.

9. What is injury incidence and what is prevalence? Describe the main difference between the two.

*prevalence = number of injuries / number of people in population *

*incidence = injuries per year (times 1000 (or 10 000)) / number of participants * hours played per week * weeks (in a year) *

*main difference is that the factor exposure time is included in incidence.*

10. What is better: using an ankle brace or taping in the first three weeks after an ankle injury?

*It is generally believed that a brace is safer in the early rehab phase due to the greater mechanical fixation. There are hard braces and semi-rigid braces*
11. The mechanism of ankle injury is typically described as combined plantar flexion and inversion. Find a paper in the literature where an acute ankle injury is described. Does this match the commonly named injury mechanism?


The important observation is, that no or not much plantarflexion occured during the injury indicating that the mechanism which was generally proposed (and is also listed in the lecture) does not (or not in all cases) apply.