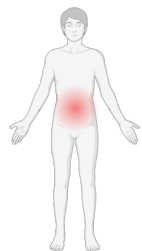


# Training Load Monitoring in Winter Sports

## Background

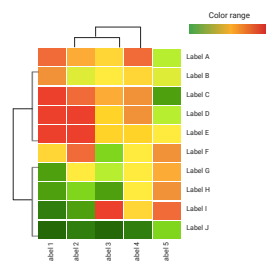


### Training load and other injury risk factors

Winter sport athletes are subjected to a high training and competition load

**Possible injury and illness risk factors:** sex, age, air travelling, type of sport, competition, fitness, training volume and intensity

## Principles of Monitoring

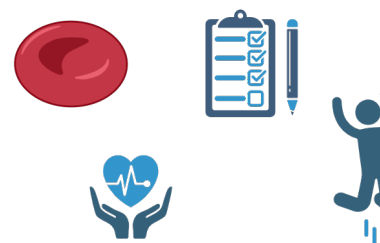


### Principles & aims of load monitoring

Measurement of **external** and **internal** training load to **prevent injury / illness** and to maximize athlete performance

Markers should be **sensitive**, not too **invasive**, not too **expensive** and have **no influence on the training routine**

## Monitoring Tools



### Possible load monitoring tools

Local positioning system

Questionnaires

Blood- (or saliva-) based biomarkers

(Neuromuscular) Performance testing

Heart rate measures

## Conclusion



### So what?

Load monitoring is gaining significance in winter sports

Various tools were introduced, each with strengths and weaknesses

**Longitudinal research** is crucial to evaluate marker reliability