

# Band type EMG device for athletes injury prevention

# Injuries in sports



There are many types of injuries in sports, such as fractures, sprain, and muscle injuries.

Among them, fractures and sprains are often caused by accidents, but muscle injuries often occur without special collisions.

Muscle injuries usually start with increased muscle fatigue.

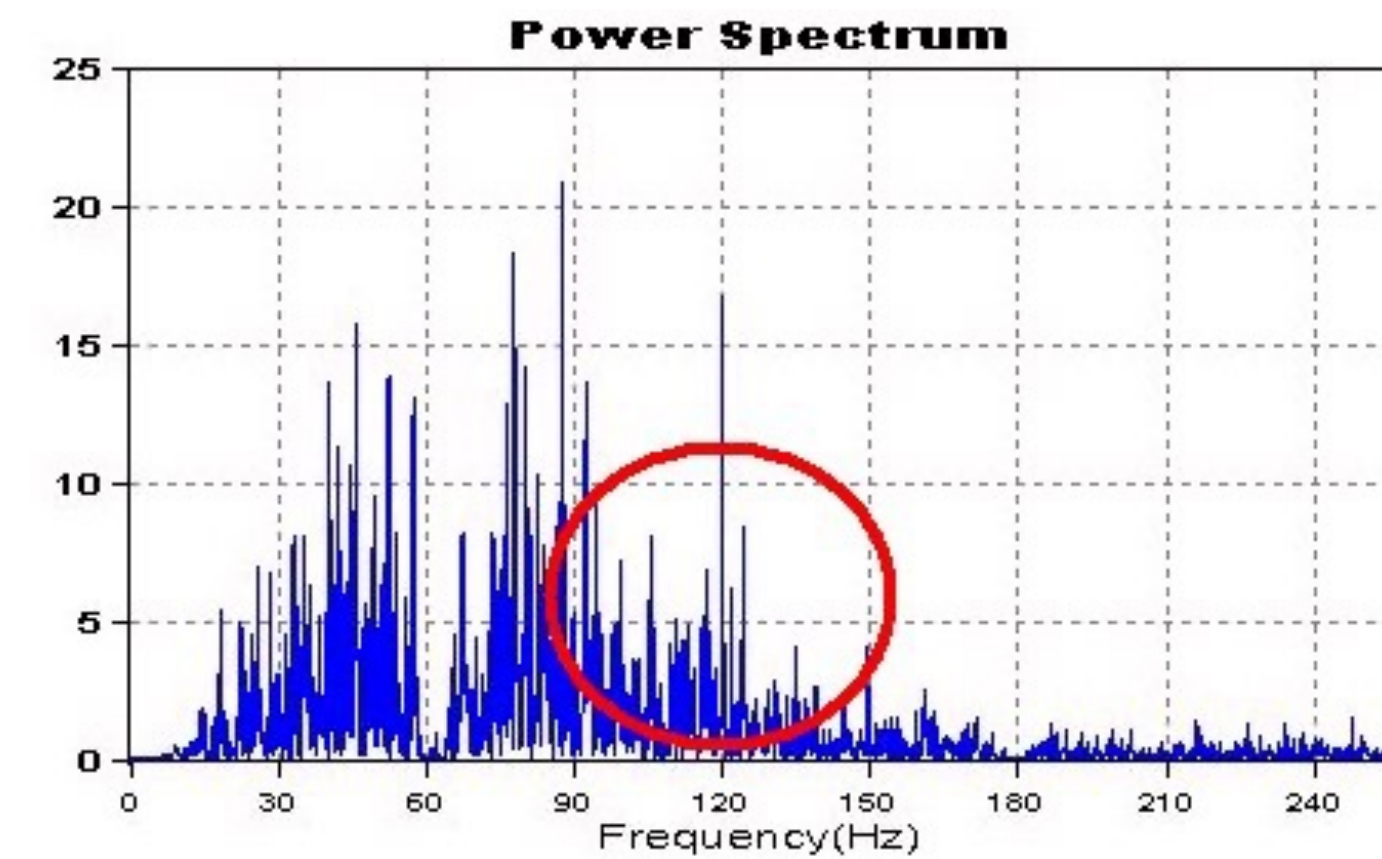
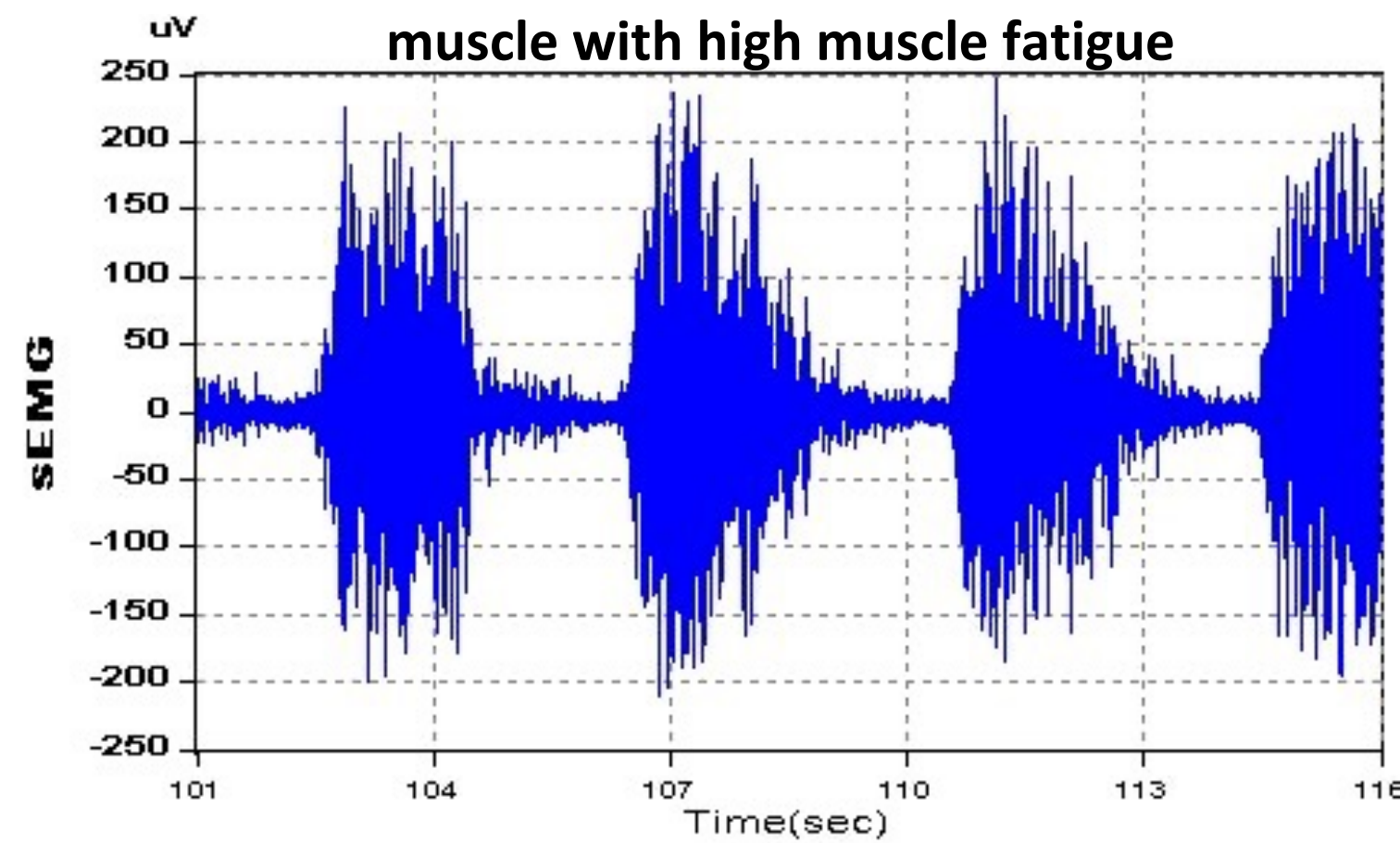
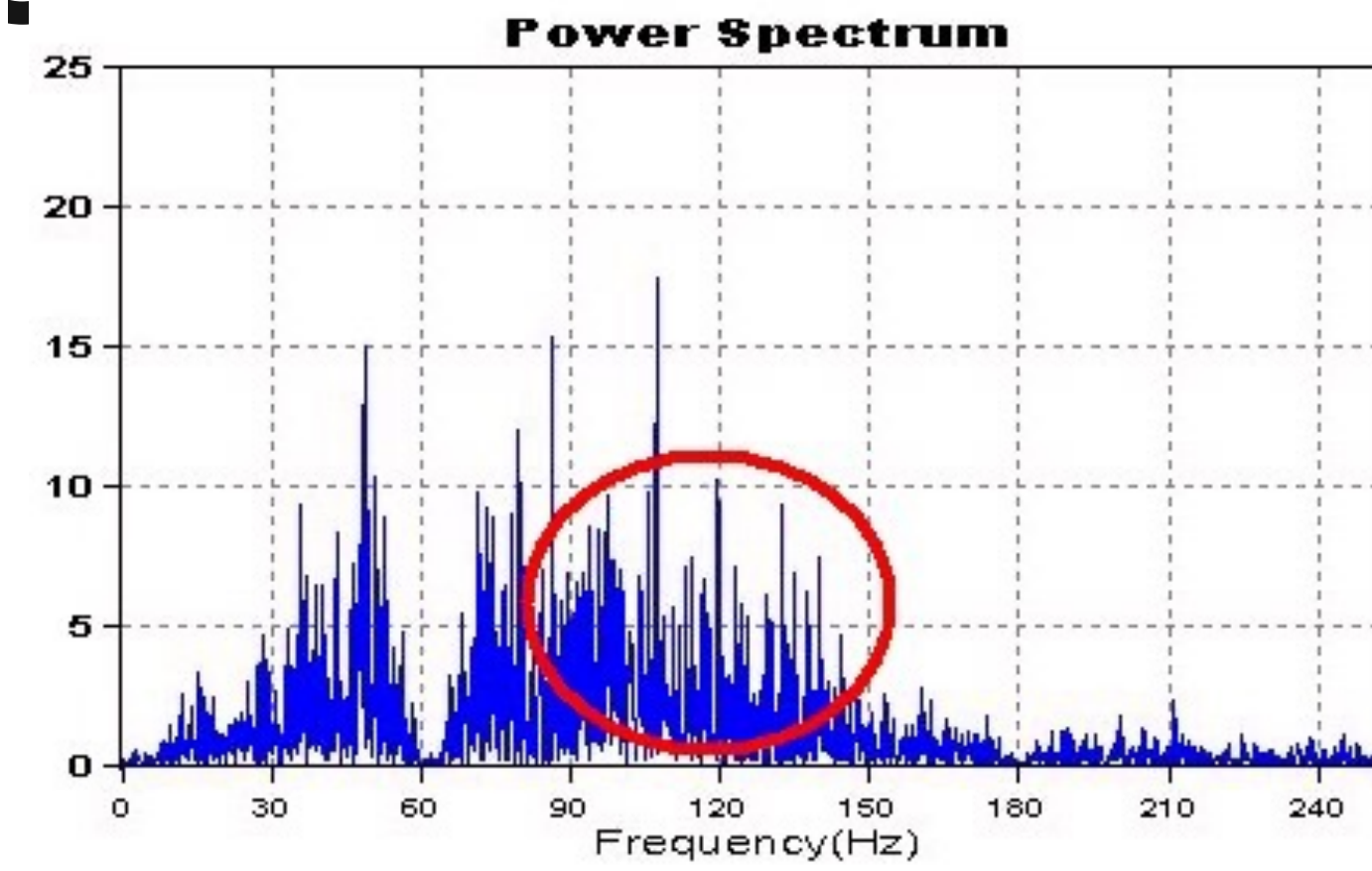
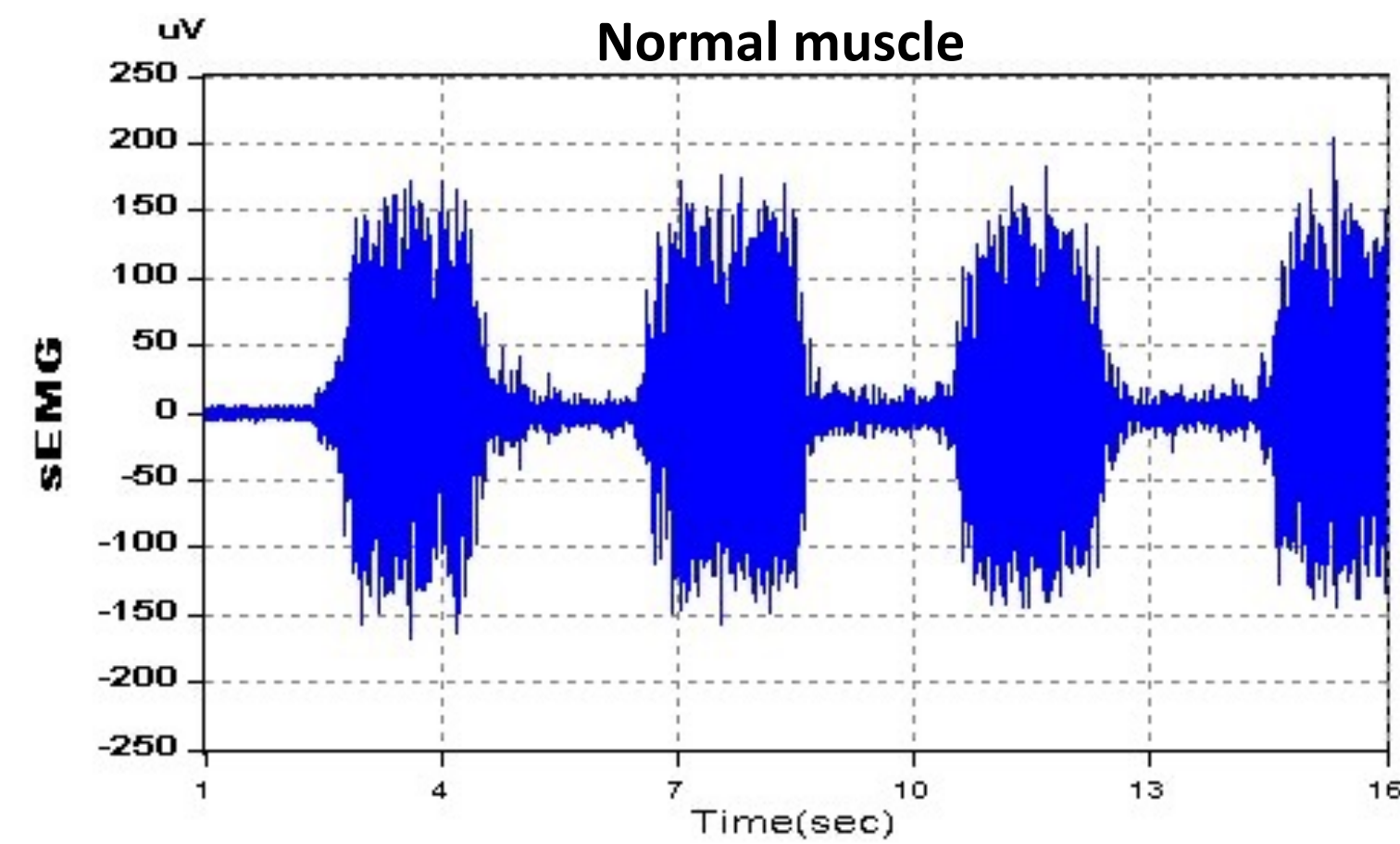
If coach or manager can predict these cases through muscle fatigue and prevent injuries, players will be able to continue their life as an athlete better.

Furthermore, in the case of team sports, they will be able to achieve team's plan better.





# EMG signals



# Abstract

Band with muscle fatigue measurement technology using EMG signal measurement technology

Wear a band on the main injury area of the athletes,

For example, a soccer player with frequent right hamstring injuries wears a band on his right hamstring, in the case of pitchers, shoulder injuries are frequent, so a band is worn on the shoulder.

Through this, expressing the possibility of injury by calculating muscle fatigue

View the potential for injury expressed and provide the possibility of player condition management through injury prevention and a change of player

Based on EMG signal data just before the injury collected, the accuracy of the injury prediction can be increased



# Representative drawings and brief description of drawings

Band type device using EMG sensor

Use the BLE protocol module to show information to the supervisor and coach, or on your phone

The battery uses rechargeable or small coin cell batteries

