Sports biomechanics is used to reduce injuries and improve performance. Force is a push or a pull exerted on an object, always having a magnitude and a vector (size and direction). Load is the force exerted on a surface or body. Velocity. Biomechanics testing - laboratory. An athlete's performance is simulated under laboratory conditions so the various factors can be controlled. Biomechanics testing - field. The athlete's performance is analysed in training while sustaining a performance in the usual setting. Biomechanics testing - competition.

What are the two main types of loads experienced in sport? High repetitions - moderate force and high force - moderate repetitions. What are three examples of high repetition moderate force activities?

[...]

Optimal orthotics may reduce muscle fatigue for a given movement task by minimising muscle activity. Mechanisms of cycling biomechanics allow recreational cyclists to position themselves for optimal comfort and efficiency and competitive cyclists to improve their performance in competition. The Santa Monica Orthopaedic and Sports Medicine Research Foundation.

The PEP program: Prevent injury and Enhance Performance. This prevention program consists of a warm-up, stretching, strengthening, plyometrics, more information. Stretching for young athletes.