

Biomechanical Analysis of Common Postures during Mobile Phone Use

Abstract

The use of mobile phones for long periods of time has been associated with musculoskeletal and vision symptoms. This work uses simplified biomechanical models of the head, neck, back, and forearms to estimate the forces and net moments at the joints required to maintain static equilibrium during mobile phone use. We conducted a survey to identify the most common postures adopted by university students when using the mobile phone and selected two of them to perform the biomechanical analysis. The results show that postures that allow comfortable viewing angles may cause higher loading moments at the joints, which can produce musculoskeletal discomfort.