

Towards closing the discrepancy of pilot anthropometry and aircraft seat dimension for reducing lower back pain (Lbp) among fighter pilots

ABSTRACT

Background: Severe Lower Back Pain is An Occupational Hazard among the Aircraft Pilot. **Objectives:** The aim of this paper is to propose an experimental procedure involved to determine the anthropometry difference between local aircraft pilots and western aircraft pilots. The study proposes understanding the relationship between the occurrences of LBP and the dimension of the aircraft seat. **Results:** LBP will be measured objectively by using Electromyogram (EMG) and expecting to provide information on the causes of LBP. The experiment will be used to come out with a solution to reduce the discrepancy of aircraft seat dimension and pilot anthropometry. **Conclusion:** This study outcome will be proposed to improve the survival among the aircraft pilot by enhancing the operational environment in the cockpit. In addition, the data gathered from the study is also can be used to design the products for aircraft purposes. Indirectly, performance among aircraft pilots whom serve for the nation will be increased. In conclusion, this study posits on the reduction of gap between aircraft seat and pilot dimension via physical ergonomics intervention and integration of dynamic components which taking consideration of biomechanical requirement.

Keyword: Lower back pain; Occupational hazard; Aircraft pilot