Assessment of some shock absorbing insoles

Abstract:

Due to the increase in prescription of insoles to relieve symptoms due to skeletal shocks at heel strike a pilot study was initiated to look at some materials used for this purpose. Five materials were examined (Plastazote, Spenco, Sorbothane, Poron (PPT) and Viscolas) by two methods. The first method used an accelerometer mounted between the teeth of one of the authors (PR) to record skeletal shock. The second method used a force plate to record the shock produced by dropping a ball-bearing onto the insoles from a standard height. The results showed that Plastazote is poor at absorbing shock with Spenco and Sorbothane being quite good. The best insole materials tested were Poron (PPT) and Viscolas with the latter being marginally superior. No account was taken of degradation of the materials in use except that Plastazote worn for 72 hours was also used in the study, this producing the worst results.