

Lee et al. Acta Biomaterialia 2013 Apr,9(4):6177-87.

**In Vitro and In Vivo Evaluation of the Bioactivity of Hydroxyapatite-coated Polyetheretherketone Biocomposites Created by Cold Spray Technology.**

Differences both in vitro and in vivo between hydroxyapatite (HA) coated PEEK and uncoated PEEK are studied. Various assays were used along with a rabbit model study. The bone-implant contact area was higher for the hydroxyapatite coated PEEK, with little or no discontinuous pockets adjacent bone compared to the uncoated PEEK. Despite differences in surface roughness due to the coating, results are positive and the authors conclude a cold spray HA coating on PEEK could be clinically beneficial with an increased rate of bone attachment and recovery.