CHANGING DIMENSIONS OF ALGINATE BANDAGE FIBERS WHEN EXPOSED TO WATER AND 0.9 % NACL

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Abstract

We examined the changing dimensions of alginate dressings (curasorb, algisite, sorbsan, kaltostat) as well as CM-cotton-print cloth when exposed to water or 0.9 % NaCl for times varying from one to several minutes post-exposure to 8 hours and one week at room temperature. Alginate fibers all swelled noticeably in water and even much more so in NaCl. Results for antimicrobial AG/Na carboxymethyl dressing variations of the bandages experienced similar amounts of swelling. Preliminary measurements of individual alginate fibers followed over one hour show most swelling occurs immediately and while fibers swell in diameter, the lengths of the fibers remain the same.