

ProTech-tive Apparel

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Staphylococcus aureus, the bacterium that causes staph infections, contains strains that may or may not be able to be treated with antibiotics and can be passed person-to-person through a contaminated object or skin-to-skin contact. Therefore, players of contact sports are more at risk for staph infections than other athletes or non-athletes. Unifi Manufacturing, Inc's All-in-One fiber is a single performance yarn that combines moisture management, stretch, UV protection and antimicrobial control. The antimicrobial control is made possible through silver ion release triggered by moisture exposure. Unifi's tests show that this inhibits the growth of and shows a 99.99% reduction of *Staphylococcus aureus*. Interviews with athletes revealed a need of a protective garment with specific construction requirements that, if made of this yarn, would help prevent the spread of harmful bacteria in contact sports. All-in-One yarn was donated by Unifi and knitted, dyed and tested in NCSU College of Textiles in preparation for the creation of a prototype athletic antimicrobial compression shirt.