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Mytilus edulis Protein Strength: Mussels Have Muscles

The protein of *Mytilus edulis* (Blue Mussel) is a strong adhesive that binds the marine animal to rocks in the ocean. It has been extracted and tested as a glue for surgical procedures. The current study was conducted to compare the tensile strength of “mussel glue” to dental glue and super glue on different surfaces and in different environments. The surfaces were steel to steel, steel to bone and bone to bone. The environment was either dry or wet. The mussel glue protein was extracted and the dental and super glues were acquired. Three tests for each glue on each surface in each environment were conducted; a total of 54 tests were conducted. An analysis of variance test was conducted to determine if the glue and the surface had an effect on the tensile strength. A linear regression was conducted to predict the strength of any particular glue type on any surface combination in any environment.