The purpose of this study was to determine whether selected physical fitness components (coordinative ability, speed, strength, cardiovascular endurance and flexibility) can be utilized as prediction factors of long jump performance. Measurements were observed from 50 selected long jumpers sampled from Indira Gandhi Institute of Physical Education and Sport Sciences, University of Delhi. Test included shuttle run, 50m dash, standing broad jump, 12 minutes walk/run (cooper test) and sit and reach. Analysis was done using t-test and product moment correlation at 0.05 level of significance. Findings showed that a significant relationship between running broad jump and cardiovascular endurance ($r = 0.41$), coordinative ability ($r = -0.50$), explosive leg strength ($r = 0.43$) and speed ($r = -0.48$) and no significant differences in arm and shoulder endurance ($r = 0.17$). It was conclude that performance in cardiovascular endurance, coordinative ability, explosive leg strength, speed and flexibility are related to running broad jump performance. The study recommends that training programs for long jumpers need to be systematic and scientific in developing physical fitness components.