

### Preparation of TPP-Chitosan beads loaded Flurbiprofen for controlled drug release

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Drug Delivery System using the chitosan beads has been investigated. In this study, The drug release behavior of chitosan beads loaded Flurbiprofen was observed in terms of various manufactured methods. Chitosan beads were prepared through the ionic crosslinking between chitosan and sodium tripolyphosphate (TPP). The Morphologies of beads were observed by scanning electron microscopy (SEM). According to the result, the drug loading efficiency of chitosan beads increased as TPP pH became low. The quantity of drug loss according to crosslinking time was maintained almost regularly after two hours. The experiment of drug release was performed in Phosphate Buffer Solution (PBS). The surface active agent was added to PBS solution to control drug release rate. The amount of drug loaded was analyzed by spectrophotometer at 247 nm. Due to high loading efficiency and easiness of drug release control, chitosan beads might become a potential delivery system to control the release of drug.