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## The novel preparation of encapsulated Thai herbal extract-Alginate complex against bacteria caused periodontal diseases

Periodontal disease is an infection of polymicrobial around tooth-supporting tissues. The aim of this study is to assess recent therapeutic strategies in which biocompatible nanoparticles are used. The active compounds were extracted from Thai herbal and entrapped in calcium alginate beads prepared with sodium alginate by the ionotropic gelation method using calcium chloride as a crosslinking agent. The beads were evaluated for particle size and surface morphology using optical microscopy and SEM, respectively. In vitro studies against bacterial caused periodontal disease

that have investigated the biocompatibility or efficacy of certain nanoparticle formulations are presented. Future directions in the application of nanoencapsulation techniques in periodontal therapies are discussed.

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