



## Oral delivery of Insulin: A Novel Approaches for Diabetes Patients

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**ABSTRACT:** Diabetes mellitus is a major pathologic condition which is responsible for the major healthcare problem in worldwide. The insulin is the commonly used for the treatment of the diabetes which given through intravenous and other route. Oral insulin is a dream of patients and a challenge for scientists. There are some obstructions that are faced during the oral delivery of Insulin i.e. Extreme pH conditions and proteolytic enzymes, Intestinal epithelium, efficient transport along GI tract etc. These condition not helpful for the absorption of insulin in gastrointestinal up to the systemic circulation. The bioavailability of insulin by oral route may be enhanced by modification in physiological properties, use of improved carrier system. The use of liposomes, microencapsulation, the use of other carrier system may help to achieve the bioavailability of insulin up to 50 percent. The new advancement in the nanoparticles and carrier system may help in the absorption and bioavailability of the insulin. Some polymeric modifications also help in the oral absorption of insulin. The oral route helps to reduce the major problems which are faced during the administration of insulin by other route. © 2019 iGlobal Research and Publishing Foundation. All rights reserved.

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