REG.NO:D7635654-AFINJ JOHP-ISSN: 2348-7704

HEB JOHP

Journal of Hospital Pharmacy
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled as Health-Education, Bureau)

An Overview on Gastro-Retentive Floating Microspheres

Balusu Haarika[1]* *K Rishipriya*[2]

[1*]Department of Pharmaceutics, Professor & Vice Principal, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya 12-5-31/32, Vijayapuri colony, Tarnaka, Hyderabad 500017, Telangana, India

[1*]**Corresponding author:**

Dr. Balusu Haarika, Professor and Vice Principal, Department of pharmaceutics, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya, 12-5-31/32, Vijayapuri colony, Tarnaka, Hyderabad 500017, Telangana, India

E-mail: serviceheb@gmail.com

ABSTRACT:

The purpose of floating microspheres is to enhance the gastric retention time. Floating drug delivery systems have a lower density than gastric juice, allowing them to stay afloat for extended periods without affecting the gastric-emptying rate and enhancing bioavailability. Gastro-retentive microspheres are especially ideal for the sustained or delayed release of oral formulations, providing flexibility in blending to achieve various release profiles while minimizing dosing risks due to a consistent and brief gastric retention period. This review aims to explore the existing literature on floating devices, the methods used, the selection of appropriate or unsuitable drug candidates for gastro-retentive drug delivery systems (GRDDS), low-density polymers that allow them to float in gastric fluid, the processes involved, and the evaluation and application of floating microspheres.

Keywords: Floating microspheres, GRDDS, drug entrapment efficiency, emulsion solvent evaporation method.

Access this Article Online	Quick Response Code:
Website: http://www.journalofhospitalpharmacy.in	
Received on 12/05/2025	
Accepted on 20/05/2025 © HEB All rights reserved	