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A Review on Floating Drug Delivery System

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Abstract: The floating drug delivery system (FDDS) enhances the buoyancy of pharmaceuticals within gastric fluids, thereby prolonging their therapeutic effects. This system is advantageous in reducing the frequency of dosing. For an effective FDDS, the density of the dosage form must be lower than that of gastric contents, which is approximately 1.004 gm/ml. FDDS can be categorized into effervescent and non-effervescent systems. Drugs that exhibit a narrow absorption window in the gastrointestinal tract are particularly suitable for this delivery method. The primary aim of this review article is to consolidate recent findings, emphasizing the physiology of stomach, classification, preparation techniques, mechanisms of action, as well as the associated benefits and drawbacks.

Keywords: Floating drug delivery systems, Gastro-retentive drug delivery system, GIT physiology



