

# Formulation and Evaluation of Floating Tablet of Paracetamol

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**Abstract:** *This study is an attempt to create floating tablets of paracetamol, which, when taken orally, extend the drug's duration of stomach residency and boost its bioavailability. The optimal combination was chosen from preliminary testing batches based on the floating behavior (floating lag time, total floating time). Various grades of polymers, including HPMC K4M, HPMC K15 M, and HPMC K100 M, as well as guar gum, chitosan, and sodium bicarbonate, a gas-generating agent, were used to create the tablet batches. To examine the impact of these polymers on both floating and releasing behaviors, the formulations were created utilizing the direct compression technique. Analgesic Antipyretic medication aims to either stimulate the control of fever and pain management. The development of floating drug delivery system for paracetamol aims to enhance its therapeutic effectiveness by sustained drug released. Reducing discomfort, manage pain, and preventing recurrence are the objectives of treatment. One of the key components of a continuous medication delivery system is an oral regimen. Drug delivery systems that can float in the stomach for a prolonged amount of time are related to the oral sustained drug delivery system group. Paracetamol is soluble in both acid and alkaline condition it remain adequate in stomach acidic condition. Its solubility influence by PH levels.*

**Keywords:** Paracetamol, HPMC, Direct Compression, Gastrointestinal Tract, Floating behavior

**Result:-**The floating tablets of Paracetamol were successfully formulated using various excipients, including a combination of polymers (like Hydroxypropyl Methylcellulose, Sodium Alginate, and Ethylcellulose), which were evaluated for their physicochemical and in-vitro performance characteristics.