

ENGINEERING PROGRESS: DEVELOPING ADVANCED DELIVERY SYSTEM FOR IMPLANTING BIORESORBABLE NASAL IMPLANT

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ABSTRACT

This research article presents a novel delivery system consisting a novel delivery tool, that facilitates the placement of a nasal implant at the treatment site. The proposed cartridge arrangement aims to eliminate operator mishandling of the implant while loading it directly into the delivery system. The implant is delivered in a sterile condition and separately packaged within the cartridge cavity, ensuring its integrity. The cartridge is designed to be assembled with other supporting delivery tools of the system, enabling efficient and accurate implant delivery to the patient's treatment site. The primary application of this delivery system is focused on delivering a bioresorbable nasal implant into the nasal cavity. The purpose of this implant is to support the nasal valve and enhance breathing by regulating inhalation and exhalation. The "Y" shape end of the implant ensures secure anchoring between nasal tissue and nasal bone, while the remaining part supports the nasal valve, providing comfort during breathing. This research introduces a novel approach to delivering a nasal implant at the target site, offering an improved delivery method for enhancing nasal function and patient well-being.

KEYWORDS: *Bioresorbable, Nasal Implant, Cartridge and Delivery System*

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