

## A Brief Overview On Solid Lipid Nanoparticles Through Topical Route

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### ABSTRACT

Topical drug delivery system can be defined as a direct consequence of medication to the skin to acquire its effect and cure disorders; but topical drug delivery is still a dare due to the difficulties in scheming the active pharmaceutical ingredient (API) fate within the skin. Topical drug administration is also localized drug delivery system anywhere in the body through ophthalmic, rectal, vaginal and skin as topical routes. Topical drug delivery is mostly culled for the local dermatological action, but now days the new technologies are also enhancing its systemic effect. Due to the safety of the component material and its controlled release aptitude, nanoparticles propose an excellent prospect for the rational delivery of drug to the desired site and for this reason these carrier systems are effectively used for topical delivery of variety of active principles for both pharmaceutical as well as cosmetic purposes. Recently, solid lipid nanoparticles (SLNs) have shown a great prospective as carriers for topical administration of active substances, predominantly owing to the possible targeting effect and controlled release in different skin strata. Also, nanostructures lipid carriers (NLCs) are a new type of topical delivery system offering improved performance in terms of drug loading and long-term stability with the ability to form highly concentrated dispersions. An additional invention in the field of topical drug delivery is the use of micellar nanoparticles (MNPs) that recommend a potentially fast and inexpensive pharmaceutical development model by using drugs already proven safe and effective to create new proprietary formulations. These novel drug delivery systems have gained much interest as they combine both the technology of lipid sciences and nanosciences, and that's why may be better alternative carriers.

**KEYWORDS:** COLLOIDAL DRUG CARRIER SYSTEM, SLN'S, TOPICAL DRUG DELIVERY.

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