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## Mechanism and Fate of Nicotine Based Transdermal Drug Delivery Systems



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### ABSTRACT

In general, nicotine-based transdermal drug delivery systems are found to be safe and efficient support in smoking termination. Studies have shown that nicotine replacement therapy has significantly reduced the sternness of withdrawal symptoms and conquer the habit of smoking. The safety concerns of all these products have been established in more or less all parts of the populace. Currently, four nicotine-based/incorporated transdermal delivery systems are available in the market, and even though they transport analogous daily doses of nicotine they vary notably in their nicotine release rates and pharmacokinetic behavior and therefore cannot be measured bioequivalent or compatible. The consequences of these differences in clinical applications are yet to be recognized, and further assessments using similar study protocols are required for direct similarities. Apart from this, three varying types of dosage forms are presently obtainable commercially for nicotine replacement therapy such as chewing gums, nasal sprays, and transdermal patches. In the present review, we have focused on the mechanism, consequences, and significant uses of transdermal based drug delivery systems of nicotine.



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