

## Cutaneous Delivery and Corresponding Delivery Systems of Drugs

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Paradigm shift has begun for development of new therapeutic drugs. High throughput screening systems with aid of combinatorial chemistry are paid attention to find out a new seed of drugs. Gene engineering is also come up to develop bio-mimic and –active peptides and nucleotides. Such biological new entities, however, are usually difficult to be orally administered to patients.

Cutaneous tissue may be a good alternative for the oral route of drug administration. The biggest issue to use the cutaneous tissue as a route of drug administration is to overcome the primary barrier of the uppermost layer of skin, stratum corneum. Several tools have already been evaluated to evade the stratum corneum barrier. Self-injection syringes (liquid injector and powder injector), microneedle patch systems and electroporation are of examples to administer drugs directly into the cutaneous tissues.

I will explain the benefits and shortcomings of these new systems. I also focus on the differences between these new systems and conventional TDDS (transdermal drug delivery systems).