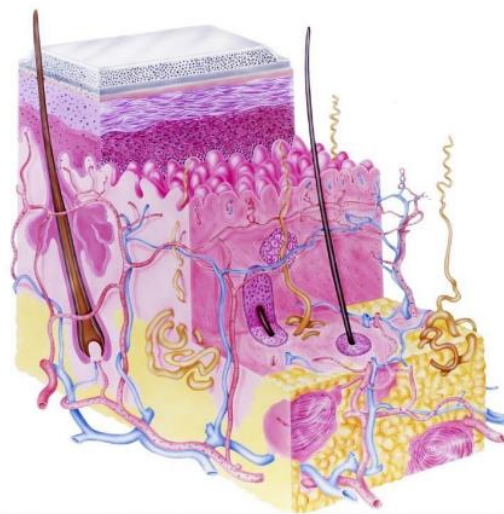


Transdermal Patches Drug Delivery System

Transdermal patches are medicinal adhesive patches that are applied to the skin and used to deliver a specific amount of medication through the skin into the bloodstream. Transdermal drug delivery systems are drugs administered topically as patches that deliver drugs at a predetermined and controlled rate for systemic effects. Theoretically, transdermal patches work on a very simple principle. The drug is administered at a relatively high dose to the inside of the patch, which is worn on the skin for an extended period of time. Through a diffusion process, the drug passes directly through the skin into the bloodstream. Due to the high concentration on the patch and the low concentration in the blood, the drug will continue to diffuse into the bloodstream for a long time, keeping the drug concentration in the bloodstream constant.



Advantages of Transdermal Patches

- Avoidance of hepatic first pass effects resulting in better bioavailability and fewer side effects for molecules with low oral bioavailability.
- In certain therapeutic areas and in certain patient groups, self-administered transdermal patches can reduce pill burden and provide longer dosing intervals and ease of administration, thereby improving patient compliance.
- Continuous dosing throughout the application, avoiding potential drug spikes and periods of over- and under-dosing, thus allowing for less frequent dosing.

Source: <https://www.formulationbio.com/transdermal-patches-drug-delivery-system-services.html>