

Diet Patches Are More Than Skin Deep. Part 1: What, when, and why.

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http://dietandbody.com/Diet_Patches.html

What these patches are, when they are better than other methods, and why.

A conservative dieter's attitude toward diet patches is skepticism at best. The flood of advertisement can hardly improve it. Is this a fair reaction? Let's take a look at the method itself first.

"Over the past 10 years or so, there have been over 7,000 transdermal-related presentations at the annual meetings of the Controlled Release Society and American Association of Pharmaceutical Scientists." -- Corium International, Inc.

Patches are designed to deliver active substances through the skin as an alternative to oral pills or injections. It is possible because the skin is not just a passive cover protecting our bodies from all external invasions but is a very active organ with a complex structure and active functions.

The advantages of this (via skin) way of delivery are evident to doctors and pharmacologists: patches provide a steady flux of a substance as opposite to inevitable ups and downs of the substance's levels. It also doesn't irritate the mucous membranes of gastro-intestinal pathways, it doesn't require scheduling so one doesn't miss a doze and doesn't over-doze, to name a few of the most important things.

Modern advanced patch system contains the active drug inserted into a polymer matrix, which is the adhesive layer at the same time. This transdermal system is very efficient in providing specific effects. There are also combination methods such as perfectly non-invasive micro-needle patches to deliver substances normally deliverable only through injections, thermo-patches, magnetic, and even electro-patches - all designed to increase skin permeability for the drugs. All are considered absolutely mainstream.

To sum it up, here are lists of patches in use, on clinical trial, and in the pre-trial phase of research.

Patches in use

- **Transtec:** pain relief
- **Tulobuterol:** asthma control
- **Tripolidine:** allergy relief
- **Fentanyl:** narcotic pain-killer
- **Estradiol:** female hormone
- **Clonidine:** blood pressure controller
- **Nitroglycerin:** cardiac drug controlling heart blood vessels
- **Nicotine:** smoking cessation

- **Testosterone:** male hormone
- **Ethinyl estradiol:** contraceptive
- **Scopolamine:** used for motion sickness
- **Lidocaine:** restores a regular heartbeat, local pain killer
- **Oxybutynin:** used for bladder control
- **Methylphenidate:** used to treat attention deficit disorder and narcolepsy

Patches on trial

Insulin patch (phase 2 clinical testing) - an affordable and practical alternative to injections and oral drugs. The daily insulin skin patch is non-invasive and anticipated to be cost competitive.

Hydromorphone (phase 2 clinical testing) - rapid, patient controlled pain management without the use of needles.

Vaccine delivering patches (phase 2 clinical testing) - administered without injections. More effective treatments targeted delivery to the immune-cell-rich layers of the skin.

Preclinical testing of patches

- **Melatonin** (sleep aid, anti-oxidant)
- **Glibenclamide** (diabetic treatment)
- **Parkinson treatment**
- **Interferon alpha** (immune system enhancer, used for HIV, hepatitis C, and diabetes)
- **Parathyroid hormone** (normalizes calcium metabolism, prevents osteoporosis)
- **Hepatitis B** antigen
- **Morphine** (pain killer)
- **Theophylline** (used for asthma, enhances metabolism)

As you can see, transdermal drug delivery is a serious evidence-based business. Prescription-strength drugs do work when being delivered this way. So why the skepticism when it comes to diet patches?

One thing begs for explanation when it comes to diet patches. Setting aside the sophisticated drugs let me ask, why's nobody surprised that hormone replacement patches or nicotine patches do work and diet patches are under suspicion?

Why, for example, green tea in a tea-bag or extract-containing pill is accepted as metabolism enhancer but causes suspicions as an active ingredient of a diet patch? Why Theophylline is seriously considered as a viable active ingredient patches for asthma relief but not for weight loss though its metabolic effects are as thoroughly documented?

Sources

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Case Studies

Have diet patches been tested for weight loss results?

<http://www.thedietpatch.co.uk/slimming-diet-Patch-Facts/diet-patch-case-studies>

In a recent trial, conducted by JMA Market Research, 108 women tested a weight loss *diet patch*.

- 99% noticed a positive change in energy.
- 41% noticed improvements to their hair.
- 39% noticed a positive difference to their skin.
- 35% noticed healthier, stronger nails.
- 48% thought they had a better attitude to life.
- 46% felt they were better able to cope at work.

The study also recorded a **healthy weight loss** within the recommended medical safety guidelines of **2 lbs per week** from the *diet patch*.

Further Proof:

Numerous studies have been conducted into the efficacy of sea kelp in relation to weight problems. Seaweed has been recognized as a homeopathic remedy since 1863 which is why it lends itself well to a **diet patch**. More recent studies show average weight loss on moderately obese patients at 5 lbs in a six week period, without dieting. Patients reported extra energy, more restful sleep, better condition of hair, skin and nails. It was also noted that those with greater BMI's (Body Mass Index) lost the most weight. In addition to increased levels of fat metabolism, it has also been demonstrated that Fucus can produce a significant reduction in cholesterol levels, another great reason to include it in a **diet patch** formula.

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