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Osmotic Patch

This is a Kakutama Heavy Industries Product.

Description

The Osmotic Patch, true to its name uses a form of Osmosis as the delivery method for medicines. This is Kakutama Heavy Industries' first foray into medical technologies and tools. While more direct methods are available the osmotic patch is designed for a gradual release of the medicines held within the patch. This is done for two reasons, One being if applied to a patient in critical condition a large dose could send them into shock, and in the end kill them. The other being able slap one on allowing for a less invasive way of drug delivery then hypodermic needles. This also allows the doctor or nurse to be able to treat the patient quickly.

To achieve the necessary ability to absorb into the skin a solution medium is applied to allow the medicine to be more easily absorbed. This solution makes the skin more absorbent for a short period of time. It should be known the solution is not harmful to humanoids, and merely allows easier passage between the epidermis, membranes and cell walls. Once done the medicine that is applied to the patch will be easily absorbed into the body over a period of time in a safe manner.

The patch's shape is that of a small square, usually 2×2 inches, and can be as big 5×5 inches for larger or smaller dosages to be applied, and to allow for the medicine to be absorbed over a larger surface area. They come constructed of Stone Thread because of the material's inherit strength, and the simple fact like most clothes it can absorb liquid, and is easily applied. The outer edges are coated in an adhesive to make sure the patch stays in place.

While this may seem like a simple medical tool, it is a little more complex. The bandage is also laced with nano-machines. These nano-machine's sole job is to observe the patch's remaining dosage and to shift color to varying degrees depending on the dosage remaining.

Dosage Timer	
Dark Blue	Nearly Full Dosage Remaining
Light Blue	Three Quarters Remaining
Dark Violet	Half Remaining
Light Violet	One Quarter Remaining
White	Dosage Depleted Change If Necessary

Application

Application of the patch is quite easy, they come in a small box, and you simply open it, and pull one out. Once out it will appear in standard bandage wrappings. Remove these and place on an area of the body to allow easy monitoring such as the forearm or bicep area. Once dosage is depleted merely peel the patch off and dispose of it.

Medicines

As stated above many different medicines come applied already to the patches, these can be from simple pain medications to antibiotics, antidotes and vitamin supplements in varying doses. The patches also come 'blank' meaning medicines can be applied by the nurse or doctor if required.

Applying of Medicines, and Supplements

Medicines and supplements can be applied by carefully measuring the necessary dosage, and placing it over the surface area of the patch, the nano-machines will then change color to Dark Blue of the corresponding dosage applied and will begin the process as normal. The medicine once applied to the patch will automatically meld with the solution that comes pre-applied and will allow for easy absorption into the body via Osmosis and the skin.

Usage

Typically one would see these patches used on the battlefield in first aid treatment, or inside of hospitals.

OOC Notes

This page was originally made by Andrew.

This page was approve by Wes on 5/18/2008 in this thread.

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