

HumaPen Memoir, World's First Digital Insulin Pen With Memory
ELE 482: Biomedical Engineering Seminar III
March 12, 2007
By: Hamed Lahijani

Diabetes Background

Diabetes is a disease in which blood glucose levels are above normal. Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy. The pancreas makes a hormone called insulin to help glucose get into the cells of our bodies. When you have diabetes, your body either doesn't make enough insulin or can't use its own insulin as well as it should. This causes sugar to build up in your blood. Diabetes is the sixth leading cause of death in the United States. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and amputations.

HumaPen Memoir

Eli Lilly has recently released a new line of digital insulin pens for the US market. Currently available in Europe, Huma-Pen Memoir will help patients manage their insulin dosages and avoid dangerous overdoses. The injector, which hides a hypodermic needle, is the newest in a line designed by Eli Lilly.

The Huma-Pen Memoir, uses insulin cartridges. It allows the user to dial the amount of insulin they need to take. The HumaPen records the dose, date and time of the past 16 injections. The memory is a safety feature for diabetics. The pen is designed to last about three years and contains 115 parts.

Injecting yourself is pretty easy...all you do is put it on your stomach, push the top and hold it for five seconds. A fresh half-inch needle is inserted for each use. Replace the cap after the injection and the device looks like a fountain pen. It currently is on retail for about \$45. MEMOIR, which is reusable, is compact and designed to resemble a writing pen, which is great due to the fact that it can be discreet injections in public compared to using a vial and syringe. Huma-Pen Memoir is now available by prescription in pharmacies nationwide for use with Humalog (insulin lispro injection).

Lilly has also announced that it will launch an insulin pen that delivers Humalog in smaller increments, HumaPen Luxura HD, in April 2007. Luxura HD is a reusable pen that can deliver from 1-to-30 units of Humalog in half-unit increments, beginning after the first unit. Luxura HD requires a prescription.

Sources:

1. HumaPen Ergo: A New 3.0ml Reusable Insulin Pen, Stocks A.; Perry S.; Brydon P.; Clinical Drug Investigation, Volume 21, Number 5, 2006, pp. 319-324 Adis International

2.<http://newsroom.lilly.com/ReleaseDetail.cfm?ReleaseID=230738>

3.http://www.medgadget.com/archives/2007/02/humapen_memoir.html