

POSITIVE!

DIABETES

NOVEMBER 2007

The OmniPod Insulin Management System



Positive Profile:
Doretta Reily

Tips for Healthy
Holiday Eating

POSITIVE LIVING WITH DIABETES



The OmniPod Insulin

Management System

The OmniPod Insulin Management System came into being when a venture capitalist's son was diagnosed with type 1 diabetes.

"He did some research and quickly realized that insulin pump therapy is the way to go," said John Garibotto, Vice President of Research, Development and Engineering for Insulet Corporation, the makers of the OmniPod System. "But he wasn't satisfied with the existing technology. He gave me some seed money and said, 'Go figure this out.'"

John pulled together a team of mechanical, electrical and software engineers and set out to re-invent the insulin pump, starting from a clean sheet of pa-

per. Five years later the result was a system that does what other insulin pumps do, but in a totally different way.

"Our goal in developing the product was ease of use and convenience, with safety and reliability as a given," John said. "Early on we decided that a two-part system made sense."

The two parts of the OmniPod System are the Pod itself, which holds and delivers the insulin and can be attached to various parts of the body; and the Personal Diabetes Manager (PDM) which is the "brains" of the system, and controls the Pod through radio frequency technology. There are no tubes or wires connecting the Pod to the PDM. The Pod is watertight, so it does not

have to be removed when you take a shower, exercise or go swimming. The PDM also features a built-in FreeStyle blood glucose monitor, so there's no need to carry a separate monitor.

We asked John to spell out the advantages that the two-part system offers.

"The obvious advantage is the lack of tubing," John said. "Some patients just don't like the feeling of being tethered to a medical device. Patients put on the Pod, and after a while they forget it's there."

"This is also a great system for people who don't like needles. Once you apply the Pod to the skin, the small tube through which insulin is delivered is inserted automatically via a small needle that you never see or handle. It inserts automatically in 1/200th of a second. Speed is a component of pain—a slow insertion hurts much more than a quick one. This system is extremely fast and accurate, and virtually pain-free."

"The user interface is also a big factor. Since you wear a conventional insulin pump all the time, the designers make them as small as they can. But that means they only have a small screen to work with. By separating the user interface from the pumping mechanism, we were able to have a nice big screen and easy-to-use buttons. All the instructions are in plain English. There are no codes to deal with. When you set up your system for the first time, a set-up wizard walks you through the process. When you get to the end, it asks you to put on a pod. You don't have to prime the tube with insulin like you

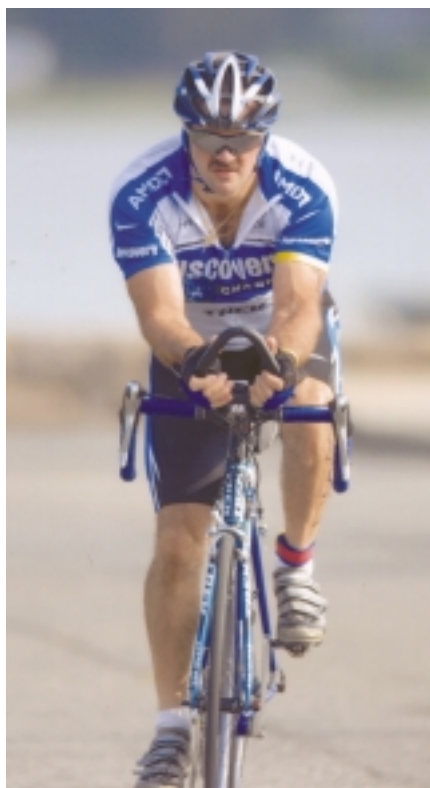
do with a conventional pump. Priming is completely automatic."

"The PDM is also very discreet," John says. "It looks like a handheld digital device or a cell phone. Pull it out in a crowded restaurant to give yourself a meal-time bolus, and even your dining partners will think you're sending someone a text message or answering an e-mail. There are no tubes to give it away."

Anthony Vita, a vehicle mechanic, avid cyclist and father of three, chose the OmniPod System primarily because of the lack of tubing.

"I work on everything from forklifts to cranes," Anthony says. "I work underneath dashboards and in other awkward places. I wanted an insulin pump, but I was concerned about accidentally pulling out the tube and having to take a break from work to replace it. This system solved that problem. It's very comfortable. There are times I don't even know I have it on me. I rotate sites, and I have to pat myself to see where I





Anthony Vita, OmniPod user

put it this time.”

Anthony also likes how the system works with his cycling.

“When you exercise, you need less insulin,” Anthony notes. “Before I ride, I check my blood sugar. Then I put a temporary basal rate into the PDM . I have it pre-programmed with numbers I worked out with my diabetes educator and my doctor. So I tell it to reduce my usual basal flow by 70%. I usually ride for an hour-and-a-half to two hours. I need less insulin after I exercise too, so when I get back, I put in a temporary basal rate which reduces my usual basal flow by 50%. Of course, I can restore

my normal basal rate or give myself a bolus any time I need to.”

“I was totally devastated when I was first diagnosed,” Anthony says. “I didn’t know what to do. But this has given me my life back. I’m able to control my diabetes more tightly—and with more freedom at the same time.”

Jeff Smith, Vice President of Marketing and Business Development for Insulet Corporation, points out that another advantage of the OmniPod System is start-up cost.

“The OmniPod System Starter Kit, which includes the PDM and two OmniPods, has a list price of \$800, compared to a list price of between \$5,000 and \$6,500 for most conventional pumps. Each box of 10 OmniPods has a list price of \$345. Depending on a patient’s insulin needs, they will use approximately one box of OmniPods per month, as a pod is usually replaced every three days. The total cost of using the OmniPod system is typically 50% to 60% of the cost of a conventional pump in the first year, 70% to 75% at the end of two years, and about equal at the end of three years.”

Insulet Corporation has been working hard to get the OmniPod covered by the major insurance and managed care plans. “There are approximately 200 million people with private insurance in the United States, and we currently have contracts in place to cover 96 million of them,” Jeff says. “That doesn’t mean the others can’t get an OmniPod covered—it just takes a bit longer.”

For more information, log on to MyOmniPod.com. □