

RESEARCH UPDATE: ARTIFICIAL PANCREAS

Researchers working on an artificial pancreas believe they are just a few years away from an easier way for people with diabetes to monitor their blood sugar levels and inject insulin as needed. They believe by linking continuous glucose monitors and insulin pumps, a seamless insulin delivery system will be created.

So how does it work? A continuous glucose sensor is implanted under the skin, and transmits blood sugar readings to a monitor. A computer calculates the right dose of insulin, which is delivered by an insulin pump, something many patients already wear.

Such a system would be especially helpful for children with type-1 diabetes. "Parents are waking up every night, usually multiple times, to test the blood sugar of their children," said Dr. Aaron Kowalski of JDRF. "And often it is high or low. Overnight control might be the easiest part of the closed loop. We think we can do this now."

Also in agreement is California's Stanford University and Packard Children's Hospital Dr. Bruce Buckingham. He feels that the easiest test of an artificial pancreas might be at night, when people are not eating, drinking or moving about, thus their bodies are not making the changing demands for insulin. Researchers agree that the computer could be as small as an ipod, but could be close to six years for the computer to be completely automated and waterproof in an all environment system. To read more, visit Diabetes News at jdrf.org.