

# INSULIN INJECTIONS

## *EASIER Than Ever Before*



2006 Camp Twin Lakes

Once a year, more than 80 children take part in one week of water sports, rock climbing and bonfires at Camp Twin Lakes, laughing and playing without a care in the world. The overnight camp in Florence, Miss., appears to look like any other summer camp across the country, but it provides more than just life-long memories. Camp Twin Lakes provides the keys to living a long life with diabetes.

"Our camp for children with diabetes has operated for 17 years," said Phyllis White, RN, MSN, CDE, Director, Diabetes Camp at Twin Lakes. "Each child not only has the freedom to select from a number of activities, such as swimming or canoeing, but each cabin is required to have an education period that explains ways to maintain their health with diabetes."

Camp Twin Lakes, which is a service of Forrest General Hospital in Hattiesburg, Miss., is supervised by nurses, dietitians, doctors and a number of other volunteers who have diabetes themselves or have been to the camp and graduated to counselor positions. Last July, living healthier, active lives got one step easier for the children with the use of pen-like cartridge insulin therapy.

"The pens are more convenient, easier to use, more portable, and have more accurate dosing," said White.

Insulin is a way of life for any person living with diabetes, be it a child or adult. Discovered in 1921 to help regulate metabolism, insulin is one of the few medicines that cannot be taken orally. Instead, it was originally administered by injection, a common practice that continues today. While vial therapy remains the norm, it requires patients to carry a bulky vial and syringe, uses a complicated measuring procedure and draws stares from onlookers when administering a dose. Insulin infu-

sion pumps became the first major alternative delivery system in the 1970s, consisting of a battery-powered pump filled with a reservoir of insulin and a computer chip to control its continuous delivery. Jet injectors releasing a stream of insulin at high speeds and pressure introduced a needleless system, to the relief of many, but its high expense, loud noise and 8-ounce size kept it from the masses. In 1987, cartridge insulin devices were introduced, combining insulin and syringe into a small container that makes self-treatment discreet, easier to use and more portable.

Researchers have found cartridge injections to be safe, effective and preferred over vial injections by study participants. In one 1998 study of more than 1,300 insulin users by Diabetes Care Team at Longmont Clinic in Colorado, lead researcher Marilyn Graff found participants' "overall attitude toward insulin therapy improved, as did their confidence about managing their disease." In 2004, researchers with the Diabetes & Glandular Disease Clinic in San Antonio, Texas, found 53 percent of elderly patients could administer their own injections without assistance versus 20 percent using vial therapy, and 82 percent of patients preferred the pen treatment.

But more important than preference, cartridge insulin therapy has been shown to provide more accurate dosing than vial syringe therapy, including a study released by the Mayo Clinic. White and her campers agree. "If we tell a child they need 12 units and they dial versus drawing it by pulling it and plunging it down to 10 and then pulling it back until it measures to 12, the pens are easier and more accurate," she said.

And that accuracy gives the children of Camp Twin Lakes many more summers to look forward to. ♦

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