

Diabetes

NEWS

Baptist-South Miami Diabetes Care Centers

April — June 2002

Needle-free insulin system tested by patients

Taking insulin without a needle? Yes, now you can!

It's bulky, cumbersome, expensive and requires a training video to learn, but it's an important development for people who intensely dislike needles.

That's the opinion of a small group of insulin users who have been testing the new Injex "soft shot" delivery system at the Baptist Hospital Diabetes Care Center. It's the latest device to inject insulin with air pressure instead of a needle.

"You feel it, like a punch in the arm, but it doesn't hurt. That's the consensus of patients who have been testing the Injex system so far," said Lois Exelbert, R.N., administrator of the Diabetes Care Center.

Injex uses air pressure to force the insulin through the skin. It leaves a small circle and an occasional drop of blood and sometimes causes an itching sensation for a few moments, Ms. Exelbert said. "Patients say they still hesitate a moment before getting the courage to press the delivery lever," she said, "but it's not the same trepidation as using a needle."

She said that delivery of medication with air pressure rather than a needle is a technology that has been around for many years, but was primarily useful for a large population needing immunization shots, such as a military setting. "The insulin air injectors that have been available for the past 10 or 15 years tended to hurt and leave ugly blotches," she said. "Injex seems a lot more user-friendly."

It takes a number of steps to get the insulin from the vial into the arm, but "people



are saying that they get used to it pretty quickly once they learn," said Ms. Exelbert. "But it's not the kind of thing they want to carry with them to a restaurant, and sometimes even at home they find it's just easier to use a pen device or a syringe."

Also, it has a range of only between five and 30 units, "so a patient who needs fewer than five units can't use it, and those who need more than 30 units require two applications," Ms. Exelbert said. She said the company, Equidyne Systems of San Diego, is promising that a 50-unit system will soon be on the market. The device costs about \$250, so people should call their insurance companies to see if the device and the supplies are covered. The price is less than some of the other air injectors that have been around.

Ms. Exelbert said that there is still room for about 10 additional patients to participate in a one-month trial. If you are interested, over 18, and have been taking insulin for at least two months using either a syringe or insulin pen, please call 305-270-3696.

Congratulations, experts!

Congratulations to two staff members from the Baptist Hospital Diabetes Care Center who have achieved a new advanced degree — Board Certified Advanced Diabetes Manager. The two, Lois Exelbert, R.N., administrator and Vivian Fernandez, R.D., diabetes nutrition educator, are among only five people in Florida and 163 in the country to pass the exam, offered through the American Nurses Credentialing Center.



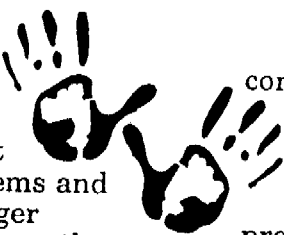
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Diabetes **NEWS**

Diabetes and hand problems



People with diabetes know that their disease may cause foot problems and are constantly on the alert for danger symptoms. But virtually no one knows that diabetes is also a common element in hand problems. Do you have numbness or tingling in your fingers? This may be a complication of diabetes. Frequently, hand problems associated with diabetes are not severe, and hence are not brought to the attention of the doctor.

Numbness or tingling in the fingers, often ignored until it becomes persistent or painful, may be caused by carpal tunnel syndrome, which is a nerve compression at the wrist. This is actually caused more by inflammation of the surrounding tendons — tendonitis — rather than a problem with the nerve itself. High blood sugar can cause tendonitis. Therefore, people with diabetes are prone to carpal tunnel syndrome.

Patients typically complain that their symptoms grow worse at night. Compression of the nerve also may lead to weakness of the thumb, which poses difficulty in many daily tasks.

The diagnosis of carpal tunnel syndrome is usually made through a careful history and physical exam of the hand, and confirmed by studies that measure the electrical conduction of the median nerve through the wrist.

The treatment initially consists of sleeping with a night splint and high doses of vitamin B6. Anti-inflammatories may help as well, as might a cortisone injection in the wrist. Those with significant persistent symptoms will require minor surgery to decompress the carpal canal and take pressure off the median nerve.

A new technique allows this to be done endoscopically through a tiny incision with local anesthesia. Patients can use the hand immediately after the outpatient procedure, miss only a minimum amount of work and usually don't need follow-up therapy.

Another tendonitis problem that people with diabetes are prone to is called "triggering," or catching of the tendon in its sheath as the patient attempts to extend the finger after flexing. Occasionally, triggering is severe enough that the finger locks and must be pried open with the other hand, which can cause considerable pain radiating up the arm and also difficulty in making a tight fist, particularly upon awakening.

The treatment is simple, involving either a cortisone injection, or a needle can be inserted into the palm to open the sheath. People with diabetes may also notice tendonitis in the shoulder or elbow.

If you have any hand, elbow or shoulder problems, discuss them with your doctor or diabetes educator.

Alejandro Badia, M.D.
Orthopedic Surgeon

Updated guidelines

Each year the American Diabetes Association updates its guidelines for diabetes educators to use in their teaching. It's a once-a-year opportunity to see what's new and what's still tried-and-true.

What continues to be obvious is that nutrition recommendations for people with diabetes should be individualized, based on blood testing and quality of life. Also, there are still many areas of nutrition and diabetes that require additional research. Here are this year's highlights:

The evidence is clear that:

- The total carbohydrates in meals is more important than the source or type.
- Less than 10 percent of your calories should come from saturated fats.
- Exercise is helpful in weight loss.
- Reducing sodium lowers blood pressure.
- Diets alone are unlikely to produce long-term weight loss. It takes structured lifestyle programs that include education, reduced fat calorie intake, regular physical activity, and regular contact with an educator.

The evidence is less clear on the value of these:

- The role of low-glycemic diets as a primary strategy in meal planning (diets that include carbohydrates that cause a low to moderate rise in blood sugar).
- The benefit of vitamin and mineral supplementation unless there is an underlying deficiency (except for folic acid for prevention of birth defects and calcium for prevention of bone disease).
- Whether people with diabetes benefit from consuming more fiber than the general public.

If you want more information, come see a diabetes educator at one of our centers.

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