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FITNESS

Diabetic and Determined

By ABBY ELLIN

WHEN Missy Foy, a professional ultra-distance runner, was told she had Type 1 diabetes 10 years ago, she “totally freaked out,” she said. She knew the perils of diabetes: possible blindness, kidney failure, nerve damage. And she worried that the diagnosis signaled the end of her athletic career.

“I cried for days,” said Ms. Foy, a doctoral candidate at the University of North Carolina at Greensboro.

Ms. Foy, 42, visited four endocrinologists before finding a doctor who helped her figure out how to balance her insulin levels while training. “Part of it was that they didn’t have any experience with it,” she said. “They thought it would be too difficult, too stressful, to balance insulin and the intensity of training.”

No more. Today athletes with Type 1 diabetes are blasting out of the starting gate in full force. Because of new technology, the emergence of companies that help them manage their illness, the rise of successful role models and sheer determination, they are running marathons, doing 100-mile bike rides, completing Ironmen — many with their doctor’s blessing.

“I want kids with diabetes to be empowered to take care of themselves and to know and believe that there are no impediments before them,” said Dr. Larry Deeb, president of medicine and science at the American Diabetes Association. In the past, he said, if patients had said they wanted to run a marathon, “I probably would not have encouraged them.” However, “In 2007, I would.”

According to the Juvenile Diabetes Research Foundation, there are 20.8 million Americans with diabetes, about 10 percent of whom are afflicted with Type 1, commonly known as juvenile onset diabetes. It is different from Type 2 diabetes, which can be related to diet and obesity. Physicians often encourage



David G. Weingard measures his levels during practice.

children and adults with Type 2 diabetes to eat healthy low-fat foods and to exercise as a means to control their illness.

But what to do about people with Type 1? Moderate exercise — say, walking five times a week for 45 minutes — was usually viewed as O.K., but a marathon, triathlon or 100-mile bike ride? To many physicians, that seemed impossible and dangerous.

“Over all, the word ‘exercise’ never appeared,” said Judith Jones Ambrosini, 62, a writer and race walker in Manhattan who learned as a teenager that she had Type 1 diabetes. “You were told diet, medication, insulin, but exercise was like the orphan child. It wasn’t an important part of diabetes management or care.”

Today, though, diabetics have new technology that helps them gauge if they are heading into dangerous territory. Exercise has a profound effect on blood sugar, and there is a risk it will

dip dangerously, causing seizures, loss of consciousness, coma or death. That is the opposite of the usual diabetic problem of blood sugar becoming too high. Exercise requires more-frequent monitoring of blood sugar and a trickier balancing of carbohydrate and insulin intake.

Mr. Weingard said doctors are geared toward treating serious illness, “they’re not around to get you through the marathon,” and that’s why his company exists.

But self-monitoring has evolved. Years ago, Type 1 patients would check their glucose by testing their urine, but that only told them what their glucose levels were two or three hours earlier. “That doesn’t really help someone when they’re climbing a mountain or in the middle of a triathlon,” said Dr. Paul Strumph, chief medical officer for the Juvenile Diabetes Research Foundation, in New York. “They need instantaneous information.”

Most common these days is drawing a drop of blood to be read by a meter, which gives immediate results.

Today insulin pumps can communicate wirelessly with glucose meters the size of iPods to determine blood sugar levels and allow the instant and continuous flow of information. It can be costly; many insurance policies do not cover such equipment. But having these monitors helps athletes make better-informed decisions while working out: Should they eat more food? Exercise harder or ease up? Take insulin?

“Because these tools allow one to regulate diabetes better, I think physicians are less wary of people undertaking these sorts of activities,” said Dr.



Howard Wolpert, director of the insulin pump program at the Joslin Diabetes Center in Boston.

That was hardly the case when Phil Southerland was 7 months old with Type 1. Back then, the doctor told his mother, "If your son lives to 25, he'll most likely have renal failure or blindness," Mr. Southerland, now 25, recalled.

That didn't stop him from competing in bike races around the world. In 2005, Mr. Southerland, of Atlanta, founded Team Type 1, a cycling team of eight Type 1 diabetics who are bent on proving that people can live — and exercise — well with diabetes, no matter the type. They have competed twice in Race Across America, a 3,053-mile bike event from Oceanside, Calif., to Atlantic City. This year they came in first, and broke their own record (down 21 minutes from 2006, to 5 days, 15 hours and 43 minutes).

Their ultimate goal? To have an entire team of Type 1's compete in the Tour de France in five to seven years.

Regulating glucose levels is still a matter of trial and error. "The tough part is, if we have too much insulin on board before the race, we'll bonk immediately," Mr. Southerland said. "If our blood sugar is too high we won't perform at our best, and if it's too low we won't perform at all."

Until recently, one of the few resources for mixing serious exercise and diabetes was the Diabetes Exercise and Sports Association, with 3,500 members, founded in 1985 by Paula Harper, now 64, a marathon runner whose diabetes was diagnosed in 1972.

Most Type 1 endurance athletes have learned that if they want to continue their routines, they had better take control of their well-being and self-manage their illnesses, even when their doctors are supportive. As Mr. Southerland, who checks his blood sugar 18 to 25 times a day, put it, "We are essentially the C.E.O.'s of our own bodies and we don't get a break from them."

To that end, diabetic athletes have begun forming groups, dispensing advice and helping other diabetics train. In 2006, David G. Weingard started Fitness4Diabetics.com, a company



Unstoppable. Team Type 1 in training.

whose goal is to improve the health of people with diabetes through virtual fitness and nutrition coaching. So far, he has 500 subscribers and a team of seven nurses, exercise physiologists and dieticians.

His interest comes from personal experience: When he was told he had Type 1 seven years ago, he had nowhere to turn. Mr. Weingard was an avid exerciser who had completed an Ironman, but his doctor discouraged him from doing another, he said.

Mr. Weingard, now 43, found that unacceptable. He would continue to be active, he decided, but he would be meticulous about it. He spent a year training for his first postdiagnosis Ironman, simulating the experience down to the time the gun would flare at the starting line, then compiled the information in a 50-page document.

"I figured out what it's like to go in the pool at exactly the time the race would start, to test myself during the swim, then to come out and see how much insulin I needed to take," he said. "I learned what my routine would be every single hour."

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But beyond his business, Mr. Weingard, who completed the New York City triathlon on Sunday, is also a role model for other diabetics looking to ramp up their exercise — part of a growing group who see themselves as leading the way for the younger generation of both Type 1's and Type 2's.

In the past, America's most popular diabetic was, perhaps, Mary Tyler

Moore. Today, the public face of diabetes includes basketball players, long-distance swimmers, triathletes and Ironmen.

A Webcast in January 2006 by *dLife.com*, a diabetes site, featured a conversation with diabetic athletes like Jason Johnson, a major-league pitcher; Kendall Simmons, an offensive lineman for the Pittsburgh Steelers; and Ms. Foy, the ultramarathoner.

Still, with all the support now available, diabetes management remains tricky, and even experienced athletes make mistakes, as Monique Hanley knows.

Ms. Hanley, 29, is a semiprofessional cyclist in Melbourne, Australia, and the only woman on Team Type 1. She has been living with diabetes for nine years. With little information from her doctors on how to manage her diabetes and do endurance races, she educated herself about how much to reduce her insulin during a bike ride and the impact that would have. She now has a company in Australia, HypoActive.org, that helps others do the same.

But things don't always go as smoothly as they should. Last year, after a 150-kilometer race on a Sunday, she went to work on Monday. Later in the day, she had a seizure — a result of not reducing her insulin sufficiently and not allowing her body to recover. So what did she learn?

"It was a great example of why it would be much better to be a full-time athlete than a full-time office worker," she said.