



# Diabetes Forecast®

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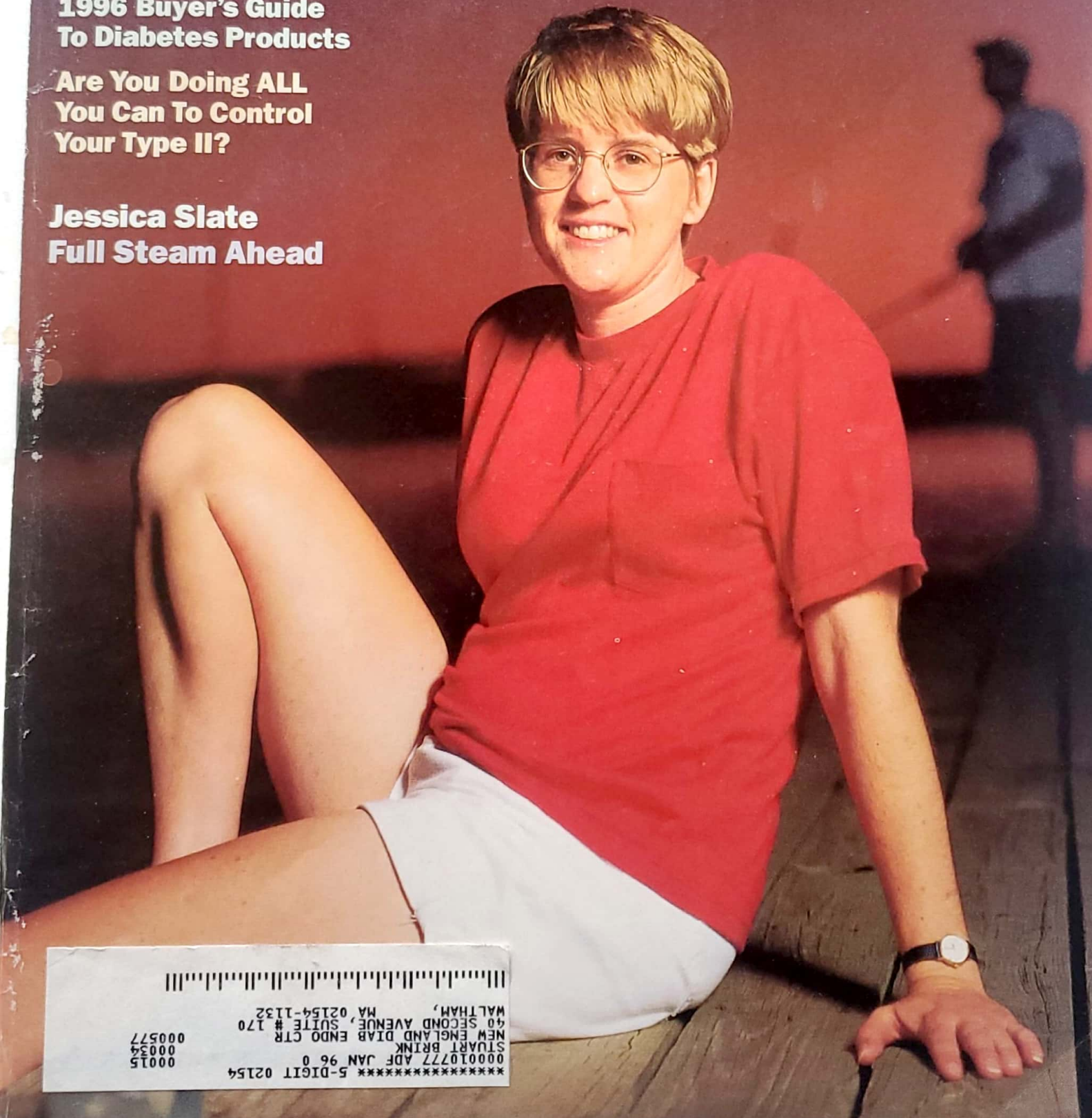
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**1996 Buyer's Guide  
To Diabetes Products**

**Are You Doing ALL  
You Can To Control  
Your Type II?**

**Jessica Slate  
Full Steam Ahead**



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# POWER PLAYER

IT WAS EASIER FOR JESSICA SLATE TO KEEP HER DIABETES IN CONTROL IN THE BOILER ROOM THAN TO PROVE THAT SHE BELONGED THERE.

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by Marcia Levine Mazur



Being impetuous isn't usually a good idea, but it worked for Jessica Slate of Beverly, Mass. "I was at a college recruitment fair," she recalls, "when someone pointed to the Massachusetts Maritime Academy display and said, 'That's just not for you.' I said to myself,

That's what you think."

With that, 18-year-old Slate chose her university, as well as her lifelong career—operations engineering.

Even more amazing: It was a great choice. "I'm 24 now," Slate says, "and I love what I do."

What she does is no clean-hands desk job. The 5-foot, 6-inch Slate works in huge power plants, with catwalks, ladders, and temperatures that can climb to 140 degrees. She





fires up two-story-high boilers, keeps massive engines throbbing, and makes sure turbines generate their enormous power without a hitch.

"I can't imagine doing anything else," she adds.

But, because Slate has had insulin-dependent (type I) diabetes since she

was four, earning her license to do the job took another kind of engineering, the kind they don't teach in school.

#### But You Have Diabetes . . .

After Slate graduated from high school in South Hamilton, Mass., she applied to the Massachusetts Maritime

Academy (MMA) in nearby Buzzards Bay to earn a B.S. in marine engineering. She was accepted.

But in April she received an ominous phone call. Because MMA is structured like a military academy—including uniforms—the school physician decided that Slate's diabetes

would prevent her from handling their sea program.

"I think there was male chauvinism involved, too," adds Slate's endocrinologist, Stuart Brink, MD. "After all, this is typically a male profession."

Slate was devastated. "I was so upset after that call that I just went for



Neither sun nor snow stops Jessica Slate from sailing, sometimes with her mom, Sharon, on the family's 30-foot sailboat.

### What's A Nice Girl Like You Doing In A Boiler Room Like This?

Jessica Slate laughs when people ask what it's like to be a female in a predominantly male profession. "Some men are put off by it," she admits, "and most guys don't believe it when I tell them what I do. But it sure gets their attention."

On the other hand, her boyfriend, Adam, who is also mechanically minded, appreciates her knowledge. "It's cool that she always understands what I'm talking about," he says.

#### Wary Workers

When Jessica walks into a new boiler room job, she often finds some of the men there a little wary. Occasionally, one or two give her a hard time. "There was some sexual harassment at a recent job," Jessica says. "But I let management know, and they spoke with the man involved and the harassment stopped."

"Actually, I find that the reactions to me often break down by age. The older ones want to take me around and show me everything. The younger ones stand back and wait for me to prove myself."

"But in some ways that's good, too, because I wind up learning twice as much by proving myself."

And once I show them I can carry my weight, it's OK."

#### Men: The Disadvantaged Sex

Actually, Slate thinks men are the technologically disadvantaged sex. "If I have to carry something that looks heavy, I go for some wheels. But a lot of guys will just struggle to carry it themselves."

"And sometimes it's easier to turn a nut if you have twice the amount of length on the wrench, so I look for a bigger wrench."

"But I've seen guys go for the short-handled wrench, then work up a sweat doing things the hard way. If you have strength, you don't think in terms of mechanical advantages."

#### Dangerous, Boiler Rooms?

Slate doesn't think a boiler room is a particularly dangerous place to work. After all, she reasons, boiler rooms generate electricity in most hospitals, schools, and in small as well as large buildings.

"Of course sometimes things happen. Once a hot water line broke and the room flooded with scorching steam. But we handled it."

She admits that you have to step carefully though. In some plants the

boilers are close together and it's not easy to get between them; in ships it's impossible. And, although the steam pipes are insulated, they can still burn.

Occasionally Jessica has to climb a ladder and step onto a catwalk high over the massive room. "Luckily, I'm not afraid of heights," she says.

She keeps her blondish hair short as a safety measure. "I used to let it grow and tie it up. But no more. It gets too hot. My biggest fear is that I'll lean over and catch my hair on something that's rotating."

"Besides, short hair is easier when you're getting ready to go out after a hard day in the boiler room."

#### Diabetes

Her diabetes seems as unaffected by the boiler room environment as Jessica herself.

However, sometimes the heat and sweat cause a skin irritation where her insulin pump tubing enters her body. "But I just go back onto injections for a few days, and wait for the area to heal, and then it's fine."

#### The Well-Dressed Engineer

Jessica wears long cotton pants and a long-sleeved shirt to work. "I look

like a gas station attendant," she says, laughing.

She stays away from polyester clothing on the odd chance that something could make it melt against her skin. "It's one of those things that's not likely to happen, but it's a precaution worth taking. A boiler room is a huge structure. Some areas are room temperature, but some areas can get pretty hot."

Jessica adds, "Of course, your biggest fear is fire. And there's a lot of potential for fires. For one thing, there is plenty of grease and oil and many hot surfaces. If oil sprays on a hot surface, it can spark a fire."

"You might as well add that the wrong combination of temperature and pressure can make the boiler blow up, too. But none of that is likely to happen, and I don't worry about it."

Is there room for romance in the boiler room? "We work pretty hard there, and you have to keep your mind on your work in a boiler room. Besides, I don't feel very romantic in my steel-toed boots," Slate adds.

—MM

a long bike ride. But I knew I wasn't going to take their answer. They didn't really even know me or how I handled my diabetes."

"Actually," Brink explains, "Jessica is a very intelligent young lady who uses a very sophisticated diabetes management program."

Because Slate has brittle diabetes—blood glucose levels that fall and rise rapidly with no apparent cause—Brink had taken the unusual step of putting her on an insulin pump when she was only 16.

"It does help," Slate says. "And it also gives me more flexibility. But you have to be committed to blood glucose testing when you're on the pump. You never know when the pump might clog and give you no insulin at all. If I don't test, I wouldn't know if that had happened until I felt sick."

But nothing like that did happen, and at 18, Jessica Slate was healthy, in good diabetes control, and ready for any challenge MMA could offer.

Her parents, Justin and Sharon, and her musician brother, Jonathan, were behind her all the way. "We were wary of her applying to MMA. We were afraid of a rejection from the

school because of her diabetes, but we never discouraged her from going into engineering," Sharon Slate recalls. "And once she made up her mind, we did all we could to help."

"After all," Justin Slate adds, "we brought her up to make her own decisions. And we are very proud of the ones she's made."

The Slates called the school and protested the doctor's conclusion. Brink sent information explaining that there really was no medical reason why his patient couldn't handle all of the school's program.

The barrage worked; Commandant of Cadets Richard Gurnon suggested that if Slate could get through the two-week orientation, the doctor would probably agree that diabetes needn't sink her hopes of entering MMA.

"That orientation was something to get through, too," Slate recalls. "It was like military boot camp. We got up at dawn, did calisthenics, ate breakfast, then marched, marched, and marched some more."

She made it through just fine. "And once I was in, there was no problem medically or academically. MMA is very attentive to its students. If you



need extra help in any subject, they'll see that you get it."

### **Ship Out And Shape Up**

For Slate, the real test came during the winter of her freshman year. Because MMA trains students for maritime duty, each class ships out each year on a 45-day training cruise.

So in the winter of 1990, Slate, along with about 600 male and 35 female classmates, boarded the T.S. (Training Ship) *Patriot State* and headed out to sea.

"They call them cruises," Slate explains, "but they're far from that. We lived on a revamped cargo ship and slept in bunks stacked four-high in the hold where bananas were once kept in storage.

"We also painted the ship, kept lifeboats seaworthy, cleaned galleys and mopped floors, and, of course, we trained.

"And, because we were at sea, we had to stand watch. That might be 4 to 8 a.m., then 4 to 8 p.m."

Slate slipped into shipboard life with ease. "I never even got seasick," she says.

But she really came alive during the hours of training in the boiler room.

### **Screaming Turbines**

Never mind the scorching heat and screaming turbines. Never mind the hellish atmosphere where pounding engines and hissing boilers make earplugs mandatory. And never mind that the job meant checking steam temperatures, watching gauges, and tightening valves in the belly of the ship, far from windows, sunlight, or fresh air. Slate loved it.

In fact, her love of the boiler room surprised even her, because Jessica Slate loves sailing—an outdoor sport where wind, not engines, provides the power and speed.

She's been a sailor since she was

four. "I'll even go out when it's snowing," she says.

She has long owned her own 12-foot sailboat called a widgeon. Her only other vehicle is a pickup truck, bought to haul her sailboat.

### **Stormy Weather**

On the next school cruise, she and her classmates sailed to the Mediterranean, gaining an hour a day on the way across, and losing an hour a day on the way back. The time changes threw a monkey wrench into her diabetes schedule.

"I found that when you start changing sleeping hours, you're not always hungry when you're supposed to eat," she explains. "A couple of times I almost had to force a peanut butter sandwich down my throat when it was time to have food."

On the other hand, nighttime snacks were easy to come by, because the ship provided an 11 p.m. meal for those going on the midnight shift.

Through all the cruises, the ship's doctors (there was a different ship's doctor on each cruise) required only one thing of Slate: that she let him or her know what was going on.

"If I got a splinter, the doctor wanted to know about it," she recalls. "But the only time I ever needed medical attention was when I got the flu. I did get pretty sick, but everything worked out fine."

During her third year at school, Slate signed on for an internship on an oil tanker. "We left L.A., went to Cherry Point, Wash., and wound up in Valdez, Alaska," she says. "I had no problems at all. It was great."

### **Fire Fighter**

Besides learning to be an operations engineer, Slate's curriculum included 25 hours of fire-fighter training.

"Fire-fighting expertise is a requirement for working at sea. After

all, you can't call the fire department when there's an emergency," she explains.

Along with other students, Slate had to know how to make her way out of a smoke-filled structure, and how to enter a burning building and put out a fire.

"That training was the scariest part of the school. It went well, but I do not want to be a fire fighter," Slate adds.

### **Fighting Against The Tide**

Although diabetes had been no problem at school or at sea, another authority—this time the Coast Guard—nearly blew a valve about it when Slate was due to graduate and receive her license to work on ships. (There was no problem with her land license.)

"Officially, it's called a Third Assistant Engineer of Steam and Motor Vessels of Any Horsepower License," she explains, "but it simply means you can help maintain the engines on commercial vessels. The Coast Guard gets involved because they monitor maritime licensing. And they would not allow me to take the licensing test because of my diabetes."

After that refusal despite her four years of work, Slate, her family, and Brink fired up their own engines.

### **Ready For Action**

"It took a lot of doing. We got letters off to the Coast Guard from MMA school administrators including Commandant of Cadets Gurnon and teachers. Dr. Brink was extremely helpful. Even Massachusetts Senators Ted Kennedy and John Kerry as well as Representative Gerry Studds got involved."

Eventually the Coast Guard took a closer look at Slate's record in relation to her diabetes and decided that she could do the job. "It was wonderful to be graduating and getting my license," she recalls. "There were 136 men and



Jessica Slate loves sailing—an outdoor sport where wind, not engines, provides the power.

*Jessica Slate with  
her friend, Adam*



only 8 women in my class.”

Today, the Coast Guard views each license applicant who has diabetes on an individual basis. “I am very pleased to have had some part in that decision,” Slate says.

She is also pleased to have her Massachusetts First Fireman’s license. “I went through a lot to get these licenses and believe me, I intend to use them to their full capacity.”

### **Texas Troubles**

Her first real job, however, was a non-starter. In Texas she signed on with an oil rig supply boat. “And,” she adds, “I spent an entire week throwing up. The ship was about as small as a tugboat, and we worked in the Gulf of Mexico, where the waters are really rough and it’s at least 100 degrees all day long. Worst of all, my diabetes was affected because I couldn’t keep food down.”

For the first time in her adult life, Slate gave up and came home. But she soon found work in the engine room of the U.S. *Delaware Responder* out of Gloucester, N.J., a ship that heads

out to major oil spills.

Eventually, she took a better paying job as a diesel power plant operator with The Massachusetts Water Resource Authority.

But some time later, the Water Resource Authority placed Slate on a rotating shift. That meant she sometimes worked days, sometimes nights. “Boilers, engines, and turbines operate 24 hours a day, all year long,” Slate explains.

The rotating shift began to have a negative effect on her diabetes. Tests showed that her blood glucose levels were no longer stable; it was vital to Slate’s health that she return to the fixed schedule.

She requested such a return, but the Water Resource Authority did not accommodate her request.

James Lavin, the lawyer she then retained, explains. “They sent Jessica to a second physician, who concurred that her health required that she be on a fixed shift. Although there was no question about the quality of her work, the Authority handled the matter by simply telling her not to come

in any more,” Lavin says. “Although she wasn’t sure of her status, her paychecks did not continue after the Authority received the second physician’s report. But,” he adds, “Jessica Slate is a fighter. She has a lot of courage, and it’s no surprise that she is going to see this through.”

### **The Voyage Out**

Looking into the future, Slate says, “I’m not really sure where I’ll wind up working, but it probably won’t be on another ship. These days it’s cheaper for companies to run their ships under foreign flags. Then they crew them in foreign countries.”

She is considering a master’s degree in business administration so she can learn to run a power plant. “I’m not sure, though,” Slate adds. “I enjoy being ‘down on the floor’ near the boilers—diesel or steam—I never want to leave that part of the job.”

Working in an engine room can bring in a nice check, too. “I’ve always been paid by the hour, but there is a lot of overtime,” she explains.

Slate’s parents learned a curious lesson from their daughter’s triumphs. People often slight the difficulties of having diabetes, because Jessica does so well.

“They tell us, ‘You’re lucky your daughter doesn’t have a serious disease,’” her dad says. “That’s pretty hard to take. Diabetes is a serious disease. It calls for a lot of hard work and care every single day of your life. And the fact that it seems simple is due to the competent way Jessica handles it.”

Slate herself has learned two lessons over time: “The more I prove myself, the fewer objections people put in my way; and the more I fight for my rights, the more I get them.” **A**

*Marcia Levine Mazur is senior editor of Diabetes Forecast.*