

A Force of Nature

by Bill Dupes

“Water is the softest substance in the world, yet it can penetrate granite. ... Empty your mind; be formless, shapeless, like water. If you put water into a cup, it becomes the cup. If you put water into a bottle, it becomes the bottle. ... Water can flow ... or it can crash. Be water, my friend.”

— Bruce Lee

Life is a dynamic force, in constant change, like flowing water. For Nick Springer, however, the course of his life has been somewhat more turbulent than the life most of us have experienced.

Friday the 13th movies aside, summer camps are usually a safe, pleasant experience for children. The same was true for Nick in the summer of 1999, at a camp in western Massachusetts, until the night of August 6, when he contracted meningococcal meningitis at the age of 14. Nick now believes he caught the disease by sharing a water bottle during an overnight hike.

Meningitis is rare and difficult to diagnose. It starts out looking like the flu or a migraine but progresses rapidly. Symptoms include

headache, fever, vomiting, numbness, stiff neck, disorientation, confusion, seizures and purple spots on the skin. Adolescents and young adults account for nearly 30 percent of all cases in the U.S.; one out of four in this age group dies within the first 24 to 36 hours. The lucky ones who survive usually experience brain damage, multiple organ failure, deafness or septicemia (blood poisoning), which usually results in amputations.

“Like a Tornado”

Since there was a flu virus going around, Nick wasn't overly concerned when he started to feel feverish with an upset



Nick shares a family moment with his sister, Olivia.

stomach. He spent the night in the infirmary and woke up feeling a little better the next morning. Back at his tent, however, he soon started vomiting again. His legs gave out and a purple blotch appeared on his skin, a sign of blood poisoning. He was immediately rushed to the nearest hospital where, following the diagnosis that he had contracted meningitis, he was transferred to a second hospital that was better equipped to handle the disease.

The infection in his bloodstream ate away at his tissues, starting with his hands and legs. When his kidneys shut down, Nick was placed on dialysis. With only a 10 percent estimate of survival, Nick was given the last rites and, at a doctor's urging, called his mother to tell her he loved her. "They thought it was the last thing he was going to say," says Nancy Springer. "That's how this disease hits. Like a tornado."

Nick made it through the night, but his condition remained unstable. When his temperature shot up to 108 degrees a week later, Nick's parents once again feared they were going to lose him. His fever subsided eventually, and for the next two months he was kept in a medically induced coma. During this time, surgeons were forced to amputate Nick's arms and legs to stop the advancing gangrene from spreading to the rest of his body. Seventeen surgeries later, when Nick awoke from his coma in October, his right arm ended at midpoint, his left a few inches below the elbow, and his legs above the knee.

A Groundswell of Concern

The Springers now speak out publicly to let parents know that meningitis threatens children, teens and young adults wherever they gather. Meningococcal meningitis is transmitted through airborne droplets and direct contact with infected people, such as coughing, kissing or sharing drinks, cigarettes or eating utensils. Lifestyle factors strongly associated with meningitis include crowded living conditions, going to bars, and irregular sleeping patterns (in other words, the average college student in a dorm).



What most people don't know, however, is that 80 percent of adolescent meningitis cases are preventable. Nick and his mother, Nancy, a co-founder of the National Meningitis Association, have worked to raise awareness about the meningitis vaccine and other preventive measures. Together, they have been working toward passing legislation that would require that parents receive information about the disease so they can make an informed decision about protecting their children from meningitis.

The Centers for Disease Control and Prevention recently voted to recommend routine meningococcal disease immunization for all young adolescents (11 to 12 years of age), adolescents at high school entry (15 years of age) and all resident college freshmen. More than 30 states now require college freshmen to be informed of the disease and the vaccine, and New York and Massachusetts have passed a law that requires overnight summer camps, as well as colleges, to provide the information. From a public health perspective, the vaccine isn't considered cost-effective, since the disease is relatively rare, affecting about 3,000 a year and killing about 300. But most parents would probably prefer to make that decision themselves than receive the kind of phone call the Springers had in August 1999.

Going With the Flow

Because multiple-limb amputations are relatively uncommon, healthcare professionals are sometimes uncertain in selecting the most appropriate treatment methods. While many of the procedures used for single or bilateral amputations are appropriate for multiple-limb amputees, there are inevitable differences; no two cases are alike. Still, there are a few common elements among children with multiple amputations:

- Early prosthetic and adaptive equipment fitting and training is vital; the sooner, the better.
- Most accept lower-limb prostheses but reject upper ones.
- Parental and child ingenuity and capacity for innovation are tremendous.
- Most are average children who are very socially adept and have physically adapted to their environment.

These children use their intelligence, strength of will, fluidity of mind, sense of creativity, and ability to learn to successfully overcome obstacles. Nick, now 19, is no different.

"Nick isn't really into planning," says his father, Gary. "He can deal with most any situation or go with the flow. If something isn't accessible, he'll either *make* it accessible or just find another way."

Nick has been driving since he was 16. Although he regularly wears a pair of prosthetic legs equipped with microprocessors, he prefers not to use upper-limb prostheses. He grabs his car keys with his teeth, which serve as substitutes for his hands. With their help, he also opens bottle caps and even the front-door screen to his house by gripping a string tied to the door handle and wheeling his chair backwards. He has a false front tooth to replace the one he lost playing hockey, so he doesn't worry much about chipping it.

After driving the obligatory mini-van for the past three years, Nick now drives a

sleek Dodge Magnum with hand controls. There's still plenty of room for his rugby chair, regular chair and sled, but without the "soccer mom" look.

"I really haven't needed to do a lot of modifications at home or at school," Nick says. "At home, we put a ramp in the living room to avoid the two steps when I'm in my chair, and we added a handrail for the two steps when I have my legs on. Everything else is on the same floor. My parents installed a roll-in shower, but I never used it; I preferred the old one."

At school, the only modifications they needed to make was changing the door and faucet handles to levers so Nick could just push them to open the door and turn on the faucets. In class, he has access to a note-taker, but he usually takes notes himself by putting the pen into the crook of his elbow and writing.

"My major is communications, with a minor in creative writing," Nick says. "I am interested in film and plan on taking more courses in that direction. I have also been thinking of taking political science courses. I'm currently taking a course called 'Argument and Debate,' which makes my dad a little nervous." In promoting the meningitis vaccine, Nick has had the opportunity to speak before health organizations and legislatures in a number of state capitols. "I have found the politics and campaigning for this important program very interesting," Nick adds, "but I'm only a freshman, and I have time to decide."

Thunder and Lightning

Nick proudly wears two tattoos. His right forearm bears the image of a burning shamrock – a symbol of his Irish descent and a tribute to the New York Fire Department's Burn Unit at New York Hospital, where his life was saved. On his left shoulder is the "Hammer of Thor" (the Norse god of thunder), which he hopes will endow him with the strength of the gods and bring him luck on the court or on the ice.

Nick was part of a group of paraplegics and amputees who started a New York sled hockey team organized by the United Spinal Association in 2001. In sled hockey, players sit strapped to a sled and use two sticks, each with picks at one end to help them move along on the ice and a narrow paddle on the other end to control the puck. With the help of his father and a family friend who was a welder, Nick used a pair of "hockey arms" attached securely to his residual arms with elastic bands and plenty of duct tape. These arm extensions and the specialized hockey sticks were designed so that the sticks would snap onto the extensions quickly and easily. Although the innovation was successful, it wasn't accomplished without a certain amount of trial and error. On more than one occasion, a game would come to a screeching halt as the players stopped to watch one of Nick's sticks go skittering by, followed closely by one of his "arms."

Nick's love of hockey led to a similar interest in quad (wheelchair) rugby (see "The Most Dangerous Game," pages 16-17), which set into motion a series of events that resulted in his enrollment last year at Eckerd College in St. Petersburg, Florida.

"When I began playing quad rugby, I wanted to find a strong team to grow with," Nick says. "But, after the last couple of New York winters, I wanted to be in a warmer climate. It's tough with the prosthetics and wheelchair in the winter." He was approached at a tournament by members of the Sarasota-Bradenton Hoveround Lightning, a Florida quad rugby team, and they asked where he planned to go to school and suggested that he come down and play with them. "Eckerd was such a good school for me that the choice was easy," Nick says.

Perpetual Motion

Water, even in a lake, must keep moving or it will become stagnant. We all experience setbacks in life; the important thing is to refuse to let the problem stop us. It is through problem-solving, and the problem itself, that we evolve. Nick shares the same philosophy. In 2000, he returned to the summer camp where it all began, only a couple of months after leaving the hospital. "I didn't know if I was going to stay a day or a week," Nick admits. "We were all just taking it as it came. I ended up staying the entire four-week session. The next year, I signed up for the camp's Summer Abroad program and went with a group of able-bodied kids and counselors. Russia was a little rough in the wheelchair, but Sweden was great, very accessible. I've spent time in Norway and would love to go back there. I was in Mexico last year, which was a lot of fun. Next would be anywhere. I am ready for anything." ■

For more information about the National Meningitis Association, please call 866/FONE-NMA (366-3662) or visit www.nmaus.org