



From Robotics to Baseball: Pearle Shines Brightly

ANDY PEARLE, *Class of 1992*

Pearle combines his love of sports and interest in computers to establish himself as one of New York's top orthopedic surgeons

by *Karan Bains '14*

An average week for Andy Pearle '92 includes time in the operating room using robotics, research in his laboratory and going to a couple of New York Mets games during the baseball season. However, Pearle is much more than a spectator at these events; in addition to his primary role as one of New York's premier orthopedic surgeons, he is an assistant team doctor for the Mets. His passion for medicine and athletics has combined to form a lifestyle that integrates Pearle's priorities, which he lists as "medicine, my patients, my family and my family's friends."

Tackling Amherst's Diverse Opportunities

When Pearle first arrived at Amherst, he "wasn't focused on becoming a doctor," but rather "was thinking about college and wanted to get the liberal arts experience." He certainly immersed himself into everything the school had to offer. As an American Studies major, he wrote a thesis on Navajo traditional healing practices under the guidance of Professor Barry O'Connell, who Pearle respects to this day. He explained that O'Connell "awakened something in me that I didn't even know existed. . . the ability to dig through a problem with somebody as wise as him was very meaningful for me."

The thesis was a culmination of Pearle's academic career at Amherst, and he put a lot of background work into his final piece. He volunteered at hospital on a Navajo reservation in Arizona for a summer, and according to his sister Lauren Pearle '95, "He became deeply involved in life on the reservation and returned there several times." In fact, two vans of Navajo families made the long drive to Palo Alto to be present at Pearle's graduation from Stanford Medical School five years later, a testament to the strong bonds he created while studying for his thesis.

Pearle's efforts were not limited to the classroom, however; he excelled on the rugby field throughout his four years. A football player in high school, Pearle decided to try rugby at Amherst and found that it suited him well. He counts beating Williams his

senior spring as one of his fondest memories at Amherst, and one of his gestures after the game showed the kind spirit that would go on to help his patients in the future. His sister recalls that after the final victory over Williams, Pearle went against tradition as he "took off his jersey and gave it to the Williams' team captain, saying that he was the best player on the field and deserved it." This display of sportsmanship showcased Pearle's brilliant leadership of a team that defeated the Ephs all four years he played. Pearle acknowledged that the athletic aspect of rugby was important, but emphasized, "Rugby was very much intertwined with my social network, a huge part of my Amherst experience, and the friends I made have been lifelong friends." He went on to play the sport for an additional six years after Amherst on a men's club, both nationally and internationally in Israel. He has also stayed in shape to this day, even running a marathon in recent years.

Integrating Computer Science and Medicine

Upon graduation, Pearle spent a year finishing his pre-medical requirements, followed by some time conducting research in Israel before going on to Stanford Medical School. When it came time to specialize, Pearle drew upon his childhood experiences. "My father [David Pearle '64] is a cardiologist and the best doctor I know," said Pearle, "so I was interested in doing something procedurally oriented, working with my hands [like he did]. I really fell in love with surgery." After graduation, Pearle decided to come back to the eastern seaboard, taking a residency in New York "to be closer to my Amherst family."

In 2003, as a senior resident, Pearle took an incredible trip back to Jerusalem during the second *intifada*, a major uprising of Palestinian-Israeli violence which began in Sep. 2000 and continued until Feb. 2005, it is estimated that over 4000 people were killed. He worked at Hadassah Hospital, which was nominated for the Nobel Peace Prize for its treatment of both sides of the conflict. Pearle said he "would round on both the terror victims and

the bombers, which was amazing."

Aside from exposing Pearle to mass casualty situations, Hadassah also inspired him through its creative use of computer assisted technology (CAS) in surgery. Pearle's Stanford pedigree had given him an interest in computers, and he was fascinated with the "innovative, original ways" the Hadassah doctors used this technology. Upon observing these unique practices, Pearle adopted a philosophy that would follow him for the rest of his career. As he recalled, "They were using CAS, but not the way the industry had provided. They were really being very creative with it. I learned you have to understand the fundamentals of the CAS tools so that surgeons can adopt that to their needs. You have to become a surgeon and a computer scientist at the same time."

A Pioneering Career

When he returned to the United States after his transformative experience in Israel, Pearle applied the lessons he learned at Hadassah to his work in New York City. He started a laboratory to research innovative uses of computer technology to improve surgical procedures, an accomplishment he lists as one of the proudest of his career. Pearle compared the CAS advances he makes in the lab to the development of technology in everyday society, saying, "CAS is almost like taking beta apps for an iPhone from the laboratory and then being able to use them to improve your surgery. In the O.R. now, we can customize how we put in the implants just like you can customize your playlists on an iPod, and we can do it using these computer tools."

As a result of his research, he was the first surgeon in New York and one of the first in the country to use robotic technology to perform a partial knee replacement surgery. Pearle's passion and belief in the blend of robotics and medicine comes through when he talks about this procedure, asserting that, "I think this tool has an ability to really refine how we do this operation because in essence, I can program the robotic arm and use it with me in surgery. It creates a much more durable solution and allows us to create a more natural feeling knee."

Pearle's expertise in knee replacement and other orthopedic procedures has made him one of the most successful doctors in the Big Apple. However, while Pearle thinks "knee replacement is a great operation," he adds that "we have a lot of work to do to make it better," citing the projected increase in required knee replacements. By 2030, Pearle estimates there will be 3.5 million total knee replacements done per year, which will account for one percent of the gross domestic product of the entire United States. Pearle prides himself in "dealing with a socially important issue like knee arthritis and making an impact," as his technology has certainly improved his field immensely.

Rounding the Bases

While Pearle's accomplishments in the hospital are astounding, he also integrates his job with his love of sports by serving as an assistant team doctor for the New York Mets baseball franchise. As an avid sports fan and an active runner, Pearle said that, "It's exhilarating to be part of the game and part of a professional organization and to be an employee of the Mets."

He goes to about a third of the team's games, and his duties include "going to the clubhouse for about an hour before the game and an hour after the game, treating players, talking about their injuries and deciding whether they can play." In addition, he evaluates in-game injuries and travels with the team for two weeks to spring training in Florida. This opportunity, according to Pearle, is perhaps the best part of his job because "it's something I can involve my family with; they come with me to spring training, and I feel very lucky that I have a part of my career that



Pearle's use of robotic technology has greatly refined the field of orthopedic surgery.

is fun for my family — it's a real gift."

Despite growing up in Washington D.C. as a Baltimore Orioles fan, Pearle has been won over by his employers. "It's not just a medical interest," he said, but rather "like being part of a family." He enjoys watching his kids interact with the children of the players, another perk to an already enjoyable job. In any case, Pearle is quick to emphasize that even though he was raised as an Orioles fan, he was never a follower of the New York Yankees, the intercity rival of the Mets.

Devoted Family Man, Doctor and Amherst Alum

Pearle's demanding professional schedule could lead one to believe that family time is scarce in his household, but he refutes that by saying his family is "the greatest part of my life." He and his wife Katherine have three young children: Allison, Alex and Charlie. His sister Lauren, admires his devotion to his wife and kids, calling her brother "first and foremost a family man."

As he moves further from his college days, Pearle's memories of his years at Amherst only grow more poignant. "I love Amherst," he said. "It's a big part of my life and my heart, and it stays with you, especially through the friendships you make." His instant recitation of the phone number for Bruno's 18 years after graduating shows that Pearle and his friends certainly helped the revenue of the local food joint. Pearle also remembered being named Amherst's player of the week by Bub's Restaurant, a rare feat for a rugby player; in his time, they named one Amherst athlete to receive free all-you-can eat barbeque for an entire week.

Pearle summarized his time at Amherst by offering an apt metaphor for the school. To him, being at Amherst is like being "a big fish in a small pond filled with all these other big, exotic, extraordinary fish, so this amazing small pond really is where you want to be."

Pearle's love of Amherst continues even as he becomes more involved in the "all-consuming" profession of medicine. He clearly loves his craft and recommends it to any prospective doctor at Amherst and elsewhere, but with the caveat that "a lot of medicine is a devotion to the art, craft, and science of medicine, and a devotion to the patients. You can't be a part time doctor, I think — you have to really live it." Pearle certainly lives the life of Amherst values as a devoted doctor, family man and sports fan, a combination that makes his alma mater proud of his impressive accomplishments as we wait for more to come.



Photos courtesy of Andy Pearle

Despite being a cutting-edge orthopedic surgeon who also works with the New York Mets, Pearle considers his family to be "the greatest part of [his] life."