For Children's doctor, philosophy on medicine is simple: 'We're going to fix it'
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Dr. Jeremy P. Doak's philosophy on medicine is simple – fix those broken bones and get on with life.

"It's also kind of like a glorified body mechanic," said Doak, a North Tonawanda native who returned to Buffalo to work at Women & Children's Hospital after his medical school stint at the University of Florida and residency work.

His career chart includes putting in time he owed to the military by working at Pensacola Naval Hospital, a deployment to Afghanistan and a fellowship in pediatric orthopedic surgery at Brown University in Providence, R.I. He returned to Buffalo in August 2014.

He is known for his work in pediatric scoliosis, sports medicine and hip arthroscopy and reconstruction, and he was the first doctor in Buffalo to use magnetically expandable growing rods to treat the early onset of scoliosis.

A runner and soccer player, Doak sees between 120 to 150 patients each week in his office over three days. The other two weekdays find him in the operating room. Doak also is associate professor of clinical orthopedics at the University at Buffalo's Jacobs School of Medicine and Biomedical Sciences.

Doak spoke recently to The Buffalo News a part of a series of interviews ahead of the move of Children's Hospital to the Buffalo Niagara Medical Campus.

Q: Why did you get into this line of work?
A: It's kind of a Boys' Club, I guess. It's athletic background, sports injuries, etc. It's also kind of like a glorified body mechanic, so you don't necessarily have to be all that smart. You just have to put things back together. That kind of appeals to me. There's also an end game, for the most part. In medical school, I was a little frustrated with chronic management of high blood pressure, diabetes, fill in the blank.

This is: "Your bone is broken. We're going to fix it. You're going to heal. You're going to go back to playing football, and farewell."

There's kind of a start, middle, finish, and we're back to good – as opposed to trying to slow down a navigable bad situation.

Q: You must be an athlete. Tell me what you did.
A: I ran track and played soccer. I still play soccer in an over-35 league, and I still run. I work out and am more of a fast runner. At my advanced age of 40 and 2 months, I can still run two miles in 11 minutes.

Q: What are some of the latest innovations in orthopedic treatment? Is scoliosis your primary focus?
A: The nice thing about pediatric orthopedics is you don't necessarily have to have a huge primary focus because that is your focus. Pediatrics is much more well-rounded. I had the opportunity in my fellowship to get some extra training in hip arthroscopy, which is a relatively new and burgeoning field, so I do that in pediatric (patients) and on adults.

Q: You were the first in Buffalo to use magnetically expandable growing rods to treat the early onset of scoliosis. How successful have you been with that?

A: It's new technology. Your traditional scoliosis patient is a teenager. Their lung development is essentially done. You can fuse their spine to stop it from getting more curvy and kind of improve the alignment without causing them any damage as far as development of their chest and lungs. However, the more rare patient is the kid who is under 10 who has scoliosis – where you can't do that because their lungs aren't fully formed, yet. If you fuse their spine, they won't have normal lung function.

With the old technology, you'd have to go to the operating room every four to six months, open up their back again and expand these rods through a little sliding system. Now we do that with a magnet. It's a box that adjusts based upon this fancy magnet that you literally wave across their back, and you can expand it however much you want. So you don't have to go to surgery. It's done right in the cast room here.

Q: Is it commonly done?

A: Early onset scoliosis is rare. Kids that get to the point where they need surgery for their early onset scoliosis, even more rare. Literally, it may be one patient a year that you see that.

We're kind of expanding that technology now to do limb lengthening. With kids who have growth plate injuries from a fracture or infection, we used to have to put external fixators on them and dial it in, so pins come out of your skin with big, old contraptions. It was basically like a construction set on your leg. Nobody loves that, and they'd have it on for months and months and months. And they would get infections in the pin sites. We wouldn't even call it a complication. It would be an expectation – you're going to get infections. We're going to have to treat you with antibiotics. You might need surgeries to wash out these infections. You're definitely going to get surgery to take all this off. It was a lot for the family.

So now we put a little rod in the bone, which is just like a rod we would use to fix an adult fracture that we can expand with those same magnets, same technology. It's starting to kind of go across various fields. The patient usually has a little muscle spasm. It takes about 30 seconds to do, so it hurts him for 30 seconds. But as soon as you stop, they're done. They don't have any pain.

Q: You've got surgical experience, treat patients, work with residents, and you're a professor in the classroom. How will it feel to head to the growing Medical Campus and a new children's hospital while wearing all those hats?

A: I think it offers us more of an opportunity to be involved in medical student education, earlier. Traditionally in medical school, you get absolutely no classroom orthopedic teaching. You get to your third year when you're starting to do your rotations at the various sub specialties and if you have an interest in orthopedics, or you're trying to figure out what you're going to do – then you come do a
rotation, but you know nothing ... so having all of this in close proximity, I think, makes it a little more accessible. I can run over and talk to students for half an hour or an hour, and run back and do stuff – as opposed to now, where I have to get over to south campus, which is a nightmare, and find a place to park.

Q: What changes will there be in the way you deliver care by moving to Oishei?

A: It gives us an opportunity, as a whole health care system, to get better. For example, I'm trying to develop a center of spine excellence or something like that, to deal with spinal deformity, fracture ... anything, really. We don't have anything like that specifically, here. ... That would be the plan. We've pitched the center. It's in the works. .... We, traditionally as a health care system, have lost a lot of those patients to Rochester and Erie. I think that's because we don't do a good job of advertising that we do spine work. The goals really are to make it a streamlined process for families so that things don't get missed and they have less confusion with a concentrated system.

Q: Anything kind of unusual about yourself?

A: I coach my kids' soccer teams. One of the kids on my soccer team ... I fixed his elbow a couple of years ago. He doesn't understand how it is that a doctor and his soccer coach can be the same person. I just tell him, "Well, soccer coach pays the bills, but I need a hobby, too."