



Park Rapids Middle School teacher Josh Cook with his family, including wife Kelly, daughter Adrienne and son Cooper.
Contributed / Josh Cook / Detroit Lakes Tribune

ESSENTIA HEALTH FIRST IN REGION TO OFFER HYPERBARIC OXYGEN THERAPY

Treatments saved Park Rapids man from amputation

BY VICKI GERDES For Health Beat

Hyperbaric oxygen therapy: For some, the name might be associated with scuba diving, as for many years it was the primary treatment for divers needing to decompress and avoid “the bends” after a deep-water dive.

For others, it’s associated with the late Michael Jackson, as the music icon reportedly used a hyperbaric oxygen therapy (HBOT) chamber to

rejuvenate himself and extend his life.

Today, however, HBOT has many practical applications, and is used in the treatment of myriad injuries, illnesses and conditions — including wound care, which is what brought Park Rapids sixth grade teacher Josh Cook to Dr. Olayinka Ajayi, a physician at Essentia Health-Fargo who specializes in hyperbaric medicine, and his HBOT team.

Cook, who has a medical condition (diabetes) that led to the amputation of the front half of his right foot, had developed “quite a blister” on the area of his foot that attaches to the prosthetic. That blister became a large, silver dollar-sized wound that had begun “burrowing back into the bone,” he explains.

“Hyperbaric oxygen therapy was the last-ditch effort before more

This is one of two hyperbaric oxygen therapy chambers offered by Essentia Health-Fargo for treatment of 14 FDA-approved conditions; one of the chambers is also used to do clinical research in the field, in a partnership with the University of North Dakota.

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amputation,” says Cook, adding that he knew next to nothing about HBOT when it was recommended to him by his doctor. Now, he can explain it almost as well as a medical professional.

“I learned a lot, but also, the staff is so great at explaining the process and why we’re doing things and getting you to the point where you feel comfortable that it’s going to be successful,” Cook says.

And successful it was: Dr. Ajayi describes Cook as “a living testimony to how successful this therapy is.”

And though his treatments necessitated trips back and forth between Park Rapids and Fargo for 35 consecutive working days, Cook says he hardly had to miss any work at all — he gratefully credits the five-person HBOT team he worked with at Essentia Health for that.

“There were two weeks where I didn’t miss any work, and two more that I was able to get back by 9 a.m. (each day), so I only missed an hour,” he said, adding, “I hate missing work. The team

was amazing at working around my schedule.”

Dr. Ajayi says that’s something they try to do for all their patients: “Everyone is treated the same,” he adds.

His team’s mantra is to look at every case as if they were the patients — to flip roles and ask themselves if they, as the patient, would be happy with their treatment.

“That’s how we approach our patients — we put ourselves in their shoes, which means we have to look out for them and what’s best for them,” Ajayi says, adding that “being flexible” and showing up at the hospital every day at 5 a.m. to start his treatment was “what was best for Josh.”

A DEEP DIVE INTO HBOT

What exactly is hyperbaric oxygen therapy? Essentially, Dr. Ajayi notes, it involves breathing pure oxygen under pressure. Inside a hyperbaric chamber, the air pressure is higher than normal, allowing your lungs to take in more oxygen than they would otherwise be

able to. And when your blood carries this surplus of oxygen throughout the body, it helps fight bacteria, as well as stimulates growth factors and stem cells, which help with the healing process.

A person’s body tissues need enough oxygen to function; when you’re injured, your body requires even more oxygen. That’s where HBOT comes in: It can make a pronounced

DID YOU KNOW?

The U.S. Food and Drug Administration has approved HBOT treatment for 14 different conditions, including: carbon monoxide poisoning; air and gas bubbles in blood vessels; severe anemia; burns; non-healing wounds; severe infection of the skin and bone; tissue damage from radiation therapy; certain types of sudden vision and hearing loss; and more. For more information, visit fda.gov.

and positive impact on a person's recovery. Consistent treatments in a hyperbaric chamber increase the amount of oxygen an individual's blood can carry.

Each day, Cook says, he would show up about a half-hour before the session started, to get his vitals checked. Then, he would enter the HBOT chamber, a process he says the team described to him as "a dive," because it "was like going down in a submarine." The end of each session was likewise described as "coming back up."

The inside of the chamber he described as "a very clear tube," from which he could see outside so clearly that he didn't really feel claustrophobic, as he had feared he would. He was able to talk to the members of his care team throughout the two-hour process.

The hardest part, he says, was having to remain "pretty much stationary" for the two hours of his treatment.

"That's not something you do too often in a teaching role," he jokes.

He completed his last session on Nov. 12, 2021.

THE AFTERMATH

"The treatment has furthered my healing to the point that every time I have a checkup, it progresses," Cook says, adding that his wound is now "about the size of a pencil eraser."

"It (the therapy) was an overwhelming success," he says, adding that when he initially went to talk to an infectious disease specialist in Fargo, he had been told his only option was further amputation — but after talking to one of the surgeons he had worked with back in Park Rapids, he decided to check out HBOT.

"He felt I needed to give this a try," Cook says — and listening to his doctor was a decision he will never regret. "Now we're not talking about further amputation, we're not even talking about further health problems. We're talking about a full healing and moving forward with my life."

OTHER USES

Last summer, Essentia Health in Fargo became the first hospital in the region to offer HBOT treatment, and this fall, a second chamber was added, enabling Dr. Ajayi's team to schedule up to five patients per day rather than just two or three.

The second HBOT chamber, which was funded in part by the Dakota Medical Foundation and Swanson Foundation, will have its use split 50-50 between treating patients and doing clinical research, in a partnership with the University of North Dakota School of Medicine and Health Sciences.

"We are excited to pioneer hospital-based hyperbaric medical services in the area and provide this care in emergent, inpatient and ambulatory settings," says Dr. Ajayi. "There is strong scientific and clinical evidence of HBOT's effectiveness as either the primary treatment option for conditions such as carbon monoxide poisoning and air bubbles in the arteries, or an added option for other conditions such as tissue damage due to radiation, poor wound healing and 'stroke' to the retina (or back of the eye)."

Currently, Essentia Health-Fargo uses HBOT to treat 14 conditions approved for its use by the U.S. Food and Drug Administration, as well as the Centers for Medicare & Medicaid Services. These include facilitating healing in diabetic patients with foot wounds, thus preventing amputations; treating tissue damage resulting from radiation therapy; and reducing heart and brain damage in carbon monoxide poisoning.

Individual treatments — or dives into the chamber — typically last between 1-2 hours. The number and length of treatments depends on the nature of the condition being treated, Ajayi says.

He adds that his team is excited to partner with UND to advance research around the benefits of this form of therapy — and thankful for the support of the Dakota Medical Foundation and Swanson Foundation, which are committed to advancing health care across this region.

"We are so grateful for these generous gifts to bring a new and vital service to our community," says Susan Omdalen, executive director of the Essentia Health Foundation-West. "This new HBOT, and in particular Dr. Ajayi, make a huge impact on the care we provide our patients. We could not offer this expanded service without the support from our community partners."



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-Josh Cook, on HBOT