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# UNO MAGAZINE



*the art of* **HEALING**

Bobbi Sue McCollum and Keith Hatfield live on opposite coasts. As medical professionals, though, their careers share a similar charge — saving lives.

McCollum is a nurse in Portland, Oregon, who spends her shifts in the emergency room. Hatfield, a physician assistant at a dermatology clinic in Jacksonville, Florida, at times helps in surgeries to remove skin cancer from patients.

Both hold degrees from UNO, but they also share another commonality — they are inventors.

Driven by a desire to heal — and equipped with the moxie required to bring an idea to life and to market — McCollum and Hatfield each has created a product to solve a health-related problem.

# INVENTIVE HEALTH

By Chelsea Bailey

## A STRAPPING IDEA

Hatfield, a 1989 UNO graduate, runs a fast-paced schedule. A physician assistant for 20 years, he keeps plenty busy at the clinic where he works. On the weekends, you might find him running in a local 5K race. And in whatever waking hours remain, Hatfield also runs a side-hustle — born out of a personal mission to treat a painful condition.

Hatfield is one of the estimated 2 million people plagued by plantar fasciitis in the U.S., according to the National Institutes of Health. A distance runner since high school, he was pain-free until 2010, when agony in his foot flared out of nowhere.

“It was just killing me,” Hatfield says. “I was so sore and was trying everything I could to take care of it.”

The plantar fascia is like a shock absorber for your foot, Hatfield explains. It’s a thick band of tissue that connects the heel to the base of the toes, and when it tightens and becomes inflamed, it causes stabbing pain.

“You can’t cure it; you can only manage it,” Hatfield says. Although there are several options for treatment, the best approach is stretching regularly.

Drawing on his master’s degree in exercise science from UNO and his athletic training experience, Hatfield tested the best stretching techniques. He tried all the devices on the market, but nothing met his expectations.

“I never felt the stretch in my arch where I wanted to feel the stretch,” he says.

So Hatfield, 55, took to the Internet, found a company that manufactures straps, ordered the parts and stitched them together. He wanted a wide strap that stretched all five toes simultaneously; something that would hit the sweet spot in the arch.

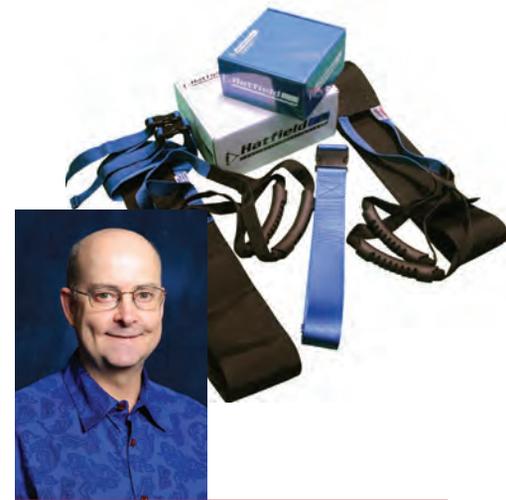
“I had a vision in my mind of how I wanted it to work,” he says. With his first working prototype, he felt the exact stretch and found relief in a matter of minutes. “It was like this eureka moment. I knew this product could help many more people.”

That’s when the Hatfield Strap was born. What differentiates this product, he says, is its large handles and shoulder strap attachment. Users can lean back and leverage their body weight for a deeper, longer and more comfortable stretch of the foot and calf.

Over the last five years, Hatfield has produced, patented, marketed and sold his straps online. He has seen some success, with professional athletes and average citizens alike purchasing the product, which has uses beyond a remedy for aching feet (see more at [hatfieldstrap.com](http://hatfieldstrap.com)).

He now is in the final stages of fundraising to expand scientific research on his device in hopes of gaining approval from the U.S. Food and Drug Administration to treat plantar fasciitis, helping to reach more people who need healing.

Despite his busy schedule and some setbacks, what keeps Hatfield going is



Keith Hatfield and his Strap

seeing the surprise and joy on people’s faces when he sees his strap soothe their suffering.

“It’s the only thing that’s given them relief,” he says.

### HATFIELD’S ADVICE FOR PLANTAR FASCIITIS RELIEF:

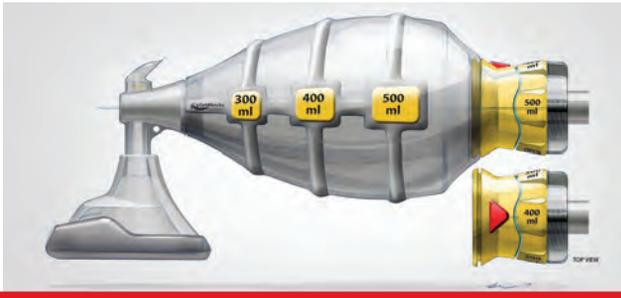
- Stretch, stretch, stretch! Focus on the foot and calf.
- Apply ice to reduce inflammation by rolling a frozen water bottle under the foot when pain is acute.
- Take anti-inflammatories for only a week to 10 days at a time and only to treat the worst flare-ups.
- Stretch in bed before putting weight on the affected foot in the mornings.
- Wear shoes or sandals with arch support, such as Birkenstocks, around the house.



## GOING FOR THE GOLDILOCKS



Bobbi Sue McCollum and her Goldilocks Valves



McCollum, 37, is a regular witness to trauma. “I see people die tragically,” says the UNO alum, who earned a 2003 degree in journalism before pivoting into nursing. “You realize how fragile life is. It pushes me to take advantage of every opportunity.”

So when she had a “eureka moment” after a training course, she knew she had to pursue her life-saving idea.

Taking an advanced cardiac life support (ACLS) certification class, McCollum was struck by what seemed like a weak solution to a deadly problem: hyperventilation. The emerging literature reported alarming death rates of cardiac arrest patients during manual resuscitation. The culprit? Operator error.

A manual resuscitator, or bag valve mask, is a hand-held device that administers rescue breaths. The danger lies when too much air accumulates in the lungs, which can suffocate the heart and starve the body of blood flow and oxygen, McCollum says.

The ACLS course emphasized the importance of providing the correct volume and number of breaths per minute — 10 for adults, or one breath every six seconds. But McCollum knew from experience that adrenaline-filled situations often interfere with internal timers.

“You can squeeze that bag endlessly and it instantly re-inflates,” she says.

Suddenly, she realized the solution was to slow down the time it takes the bag to refill, dialed to fit the patient’s size and appropriate amount of air needed.

Enter the Goldilocks Values. “It’s rescue breathing done just right,” she says. “We’re putting a safety mechanism on it, removing human error.”

McCollum and a small team, including her best friend and co-founder, Sara Halmes, have worked for the last five years developing a prototype, rallying for funding and raising awareness. Their turning point

came two years ago when they starred on CNBC’s “Make Me a Millionaire Inventor.”

Before the show, McCollum was making a prototype by hand in her dining room but encountered difficulties doing so. Thanks to the show, she achieved her first working prototype, plus the “instant credibility” that comes from being on TV, McCollum says. “We have kind of a cult following in the emergency medical world.”

In the years since, McCollum and her team have trudged ahead, spending thousands of dollars and meeting challenges but never surrendering. Currently, McCollum says they’re working toward a deal with a company capable of commercializing the product (learn more at [goldilocksvalves.com](http://goldilocksvalves.com)).

A native of Plattsmouth, Nebraska, McCollum credits the Invention Convention she attended in grade school for sparking her creative spirit.

“That was the first time I realized that I could invent something,” she says. “It made me think differently for the rest of my life.”

The event was so impactful, McCollum says, that she wants to start a nonprofit with a similar focus to inspire children to think out of the box about their potential to change the world.

“The fact that I could literally change the way the world resuscitates people, that says to me anyone can do this. We all have this ability to do something incredible.”