

Title: Austin Physicians Sprint Toward Marathon Medicine Greatness

Meta: As Austonian amateurs and travelling professionals tested their endurance in this year's race, the event's volunteer physicians pushed their own knowledge of marathon medicine to its limit.

Video Embed Link: <iframe width="560" height="315" src="https://www.youtube.com/embed/T6UG9PaABc8" frameborder="0" allowfullscreen></iframe>

Body:

Hyvon Ngetich didn't plan on ending up in the medical tent at the end of last year's Austin Marathon. She couldn't even remember how she got there, hands coated in tar, knees scraped down to the bone, having somehow won a winner's purse for what she was told had been a third-place finish.

No one else who was at the finish line that day ever forgot what happened.

Ngetich (NA-teech) had dominated the field, leading most of the [26.2 mile course](#) that cut an oblong loop through downtown Austin, but showed signs of slowing as she came to where the course stitched the Colorado River between the First Street and Congress Avenue bridges.

She was "hitting the wall," marathon runner speak for what happens to a competitor's body when it runs out the things that make it move -- sugars, salts and calories. Her energy system compromised, muscles burning with lactic acid build-up, Ngetich's will had taken her through the final 5K, but bodies that start shutting down do so for a reason: because continuation leads to true depletion and eventually [the body can do no more](#).

She dropped into second place with three miles to go, slowed but not stopped, and managed to keep pace. With less than a mile left, coasting on fumes as she passed the University of Texas campus, Ngetich rounded on the final straightaway.

With fifty yards to go she reeled and stumbled to the ground. But she didn't stop. Pulling herself forward one hand and leg at a time, Ngetich inched her way toward the finish amid cheers of encouragement from the gathered crowd of instant fans all wanting to see her cross that final line, if only so that her painful ordeal would finally be over.

The clock flashed 3:04:02.68 as Ngetich met the threshold -- not even close to her personal best -- yet the race had provided the defining moment of this professional athlete's young career. Still pulling herself across the pavement, still running the race, Ngetich was lifted into a chair and wheeled off the course to a hero's ovation. To honor her accomplishment race director John Conley upped her prize purse to a victor's share, and the feat earned a worthy footnote in the history of one of the oldest sports to still excite the modern world.

What may not be remembered was that Ngetich wasn't alone as she ground her way across those last 50 meters. Walking beside her were several women in white-crossed tee shirts and others in fluorescent reflective jackets, event nurses and EMTs, none of whom looked as though they belonged out on a course of elite competitors. One pushed an empty wheelchair near the

runner's heels. The rest flanked alongside, ready, if given the order, to pick her up by the arms and take her off the course within feet of the finish line: a disqualification.

They awaited the word. Sideline officials signaled to let the runner continue. With nothing left to do but watch, the stretcher squad stamped its support, clasp hands clapping encouragement all the way to the finish line.

"That made us nervous instead of in awe like it did the others," said Dr. Keeli Hanzelka, an Austin physician who put in an extra shift to volunteer at the outdoor medical facility within sight of the finish line.

The med tent had been outfitted to handle all the routine achilles pullers, shin splinters and up chuckers the course might afflict but also stood by in anticipation of the occasional gutsy competitor, the sort who runs her body until it refuses to function, then drags herself across a half-football-field of cold concrete to maintain her place and prize money.

An avid distance runner, Dr. Hanzelka's advice to most runners is that they should normally have no reason to find themselves crawling across the finish line, but instead should listen to their bodies and stop to recover long before reaching that point. But Hyvon Ngetich wasn't most runners. These weren't normal circumstances.

"Thank God the race director was there," said Dr. Pierre Filardi, the event's volunteer medical director. "There was a lot on the line -- to make it to that line."

A marathoner himself, Dr. Filardi knew that running's rules required that those causing danger to themselves or other course runners be removed and disqualified. Although this situation held similarities, he did not wish to see Ngetich penalized any more than the rest of those watching, knowing that her immediate payday, future sponsorship opportunities, and ability to continue professionally may have hung somewhere in the balance.

Competitive will had seen Ngetich through all but 0.1 miles of the course's slowly rolling Austonian boulevards. She was still in the thick of competition and moving open-eyed toward the finish line. Thirty years ago Dr. Filardi had been inspired by something similar: watching footage coming in from Hawaii as triathlete Julie Moss crawled her way to the finish in 1982 Ironman Triathlon, an event which helped popularize the contest and is widely considered to be the sport's defining moment.

"People are drawn to things that test the human will," said Dr. Filardi. "The energy is in the air and everyone can feel it. We love seeing the average man and woman out there trying to accomplish something great for themselves. That's empowering for others and uplifting to the human spirit."

"It's the expression on peoples faces when they pass," said Shirley Borgmann, RN, another finish line volunteer, "and seeing a moment in their lives they'll never forget."

An ER nurse for over 20 years, Borgmann's path to becoming manager of special events for her hospital network wasn't straightforward.

She recalled being daunted when first approached to help build an environment suited for teams of physicians, trauma surgeons, neurosurgeons, orthopediatricians, nurses and techs to operate, then being shown a urban area with no medical infrastructure to build upon, “not a single shelf.”

To create a comprehensive medical deployment would mean starting from scratch. Sporting and other big-events organizations sometimes provided minimal instruction, but where to go from there was usually a blank page in the medical playbook.

Marathon medicine experts know, of course, about the big five overuse injuries: plantar fasciitis, anterior shin splints, IT band syndrome, hip and back pain, and achilles tendinitis. Over the course of a few hours a marathon runner’s body makes nearly 40,000 strikes against the ground at three to four times its own weight. For a one-hundred thirty pound runner that’s 15 million pounds of force that must be absorbed by the bones, tendons, and connective muscle tissue. And with 5,000 participants at Austin Marathon that’s -- a whole lot of strains, sprains and aggravations.

“A young man who was running in fuzzy socks came in once and said, ‘My hips hurt, my knees hurt, my calves hurt,’” recalls Borgmann. “One of our nurses patted him on the back and said, ‘Sweetie, they’re supposed to. You just ran a 13 miles.’”

Certainly distance runners are expected to hurt, but too much pain may signal a serious danger. Heat illnesses begin as mild cramps and escalate; the skin becomes hot, breathing erratic, and consciousness difficult to maintain. Heart attack indicators include chest pain, breathing problems, light-headedness and other extreme bodily discomfort.

Glory seeking weekend warriors who push themselves too hard can end up in the dunk tank, an emergency measure designed to quickly lower a participant’s body temperature, or in the hospital. That is something Dr. Hanzelka helped minimize at this year’s marathon by volunteering to educate runners on how to listen to their bodies’ warning signs while testing their mettle on the proving grounds.

What the runners can’t do for themselves the medical volunteers and workers are tasked to handle. Although the hospital network is never far away, those on hand must make due with what equipment has been brought on site and face challenges they would seldom encounter in daily practice.

“It gives me something to pursue intellectually and become an expert at,” said Dr. Filardi, who likens local event medicine to a day-long missionary trip. “All physicians hunger for that.”

They can attain validation, as well, Dr. Filardi suggested, by engaging in worthwhile pursuits outside their more quotidian practice environments. No data entry or insurance verifications, very little protocol -- and grateful patients.

“It’s amazing to be able to support them,” said Dr. Filardi. “Events like the marathon boil medicine down to the most simple aspect that all physicians love: which is the care of the

patient and *caring* about the patient. When there's nothing else around to complicate it or impede it or cause frustration, that's pure medicine."

This year's Austin Marathon kicked off with events on Friday, February 12 at the Palmer Events Center near the Market District. The race took place at 7 A.M. on Sunday, February 14, at 16th Street and Congress Avenue.