WHAT LIES BENEATH

At WCE Specialty, Dr. Naz Wahab and her team use the latest technological advancements to understand the best way forward in treating patients' wounds.

When Dr. Naz Wahab agreed to work at a newly opened wound center in Las Vegas for one half day a week, she didn't realize just how much she'd enjoy it. A primary care physician by trade, she had just launched her own private practice and was also teaching part-time at a medical school, but both those endeavours started to lose their lustre for Dr. Wahab as she grew increasingly intrigued by understanding and treating advanced wounds.

"It really turned into my passion," she says.

Wanting to pursue that passion, she sold her private primary care practice, wrapped up her teaching obligations and delved full-time into wound care. While colleagues and friends may have thought it was an unconventional move, to Dr. Wahab, the shift made perfect sense.

"I have a very inquisitive mind, as well as a passion for bench research, and with my clinical acumen and my primary care background, I felt I could see things in a wound that maybe other people couldn't," she says. "Of course, I'm not saying I have x-ray vision, but I understand the physiology of other medical problems and how they're being displayed as a wound."

At first, Dr. Wahab started out as a solo practitioner, travelling to different facilities in the Las Vegas area to deliver wound care to patients. But as time moved on, she invited other practitioners with different medical backgrounds to join her in her efforts. "A wound is generally a symptom of something else that's going on in the body," she says. "It's a multi-specialty problem, so I wanted to start focusing as a multi-specialty group."

Now, more than two decades since embracing wound care full-time, Dr. Wahab is the founder and leader of Wound Care Experts Specialty (WCE Specialty), a robust team of healthcare providers specializing in areas that directly influence wound care approaches and outcomes, including endocrinology, surgical podiatry, infectious disease and primary care.

"At WCE Specialty, we provide a multidisciplinary approach to wound assessment and treatment," says Dr. Wahab. "And that approach includes the use of advanced technology like SnapshotNIR."

LOOKING FOR ANSWERS

The latest in imaging technology, SnapshotNIR is a portable, non-invasive device that uses multiple wavelengths of near-infrared (NIR) light to identify the ratio of oxygenated to deoxygenated hemoglobin at a wound site. The technology operates much like a digital camera–practitioners simply position the hand-held device above a wound and, with the click of a button, they're almost instantaneously provided with images that reveal the level of soft-tissue oxygenation in and around the site. These images, in turn, help to determine an appropriate treatment path.

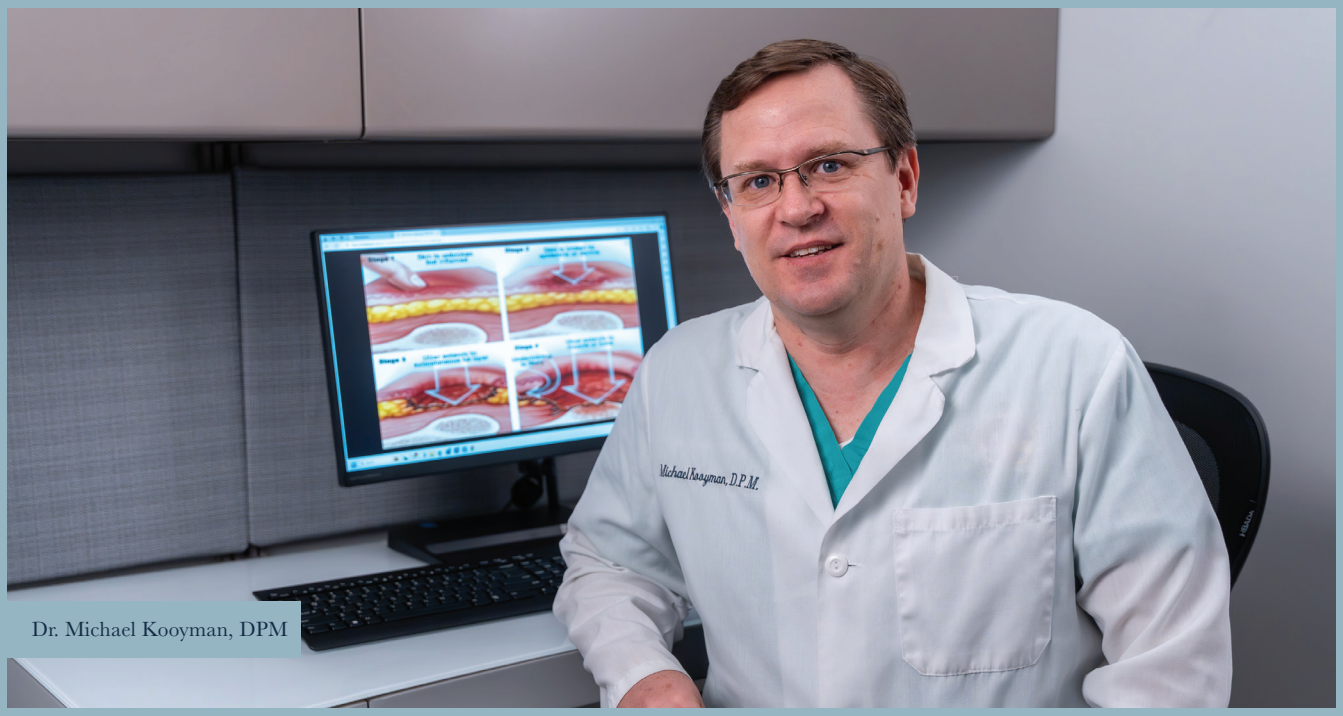
"Everybody talks about needing oxygenation for healing, so when I heard there was a piece of technology that could say whether or not there's oxygen at a wound site, I was instantly curious," says Dr. Wahab. "I started using it, and it became clear pretty quickly that the device was going to be helpful in support of our interdisciplinary approach to healing wounds."

Indeed, SnapshotNIR has become a go-to assessment tool in Dr. Wahab's practice. "On the days that I do patient care, I want a Snapshot image of a patient's wound taken prior to me even entering the room to see them," she says, explaining that nurses will clean the wound, take regular pictures and measurements, then capture the Snapshot image. "After that, I'll come in, evaluate the wound and look at the Snapshot image to assess what's happening and figure out what to do next."

Often at WCE Specialty, "what to do next" involves the use of cutting-edge treatments like macrophage therapy, negative pressure wound therapy, hyperbaric treatment or skin tissue biologics. Once a treatment path is determined, Snapshot continues to play a key role in assessing and determining healing progress.

Left to right: Dr. Naz Wahab, MD and and Dr. Michael Kooyman, DPM viewing images on the SnapshotNIR imaging device.

Dr. Naz Wahab, MD



Dr. Michael Kooyman, DPM

When starting to use skin tissue biologics on a patient, for example, Dr. Wahab will take a Snapshot image of the patient's wound to determine baseline oxygenation before applying the product. Then, when the patient comes back a week later, she'll take another image to see how the oxygenation and total hemoglobin have improved.

"All of the Snapshot images I'm looking at are helping to show if the wound is healing along the chosen pathway," she says. "Because even if the wound size doesn't change, or if it appears worse after applying some of these products (which occurs sometimes), it doesn't necessarily mean that our naked eye is telling the truth. Snapshot gives us a better idea of what's actually happening in the wound, underneath the skin."

The device has also proved helpful at WCE Specialty when it comes to identifying other underlying medical issues that are barriers to healing.

Dr. Michael Kooyman is a surgical podiatrist and wound care specialist who joined the WCE Specialty team in the autumn of 2023. Shortly after starting in his new role, he began seeing a patient with a venous stasis ulcer on her leg. After several weeks of compression therapy, the patient started healing quite nicely, but then one week, much to Dr. Kooyman's surprise, "She came in and the wound was very large again. It was just out of control," he says. "And I thought to myself, 'Okay, I'm definitely missing something.'"

Then he remembered that during his interview process with Dr. Wahab a few months earlier, she had told him about SnapshotNIR and what it could do. He decided to use the device to get more information, and, being new to it, turned to Dr. Wahab for some guidance with regard to what the captured images were conveying.

"We went over the images together, and from what we were seeing, I suspected the patient was anemic, so I sent her into primary care to get tested," he says.

Sure enough, the patient was anemic and began a treatment regimen to address her condition. "Her wound is filling in again," says Dr. Kooyman. "It's starting to heal, and we're in the know because we now understand the underlying cause of the problem, and that came from using Snapshot."

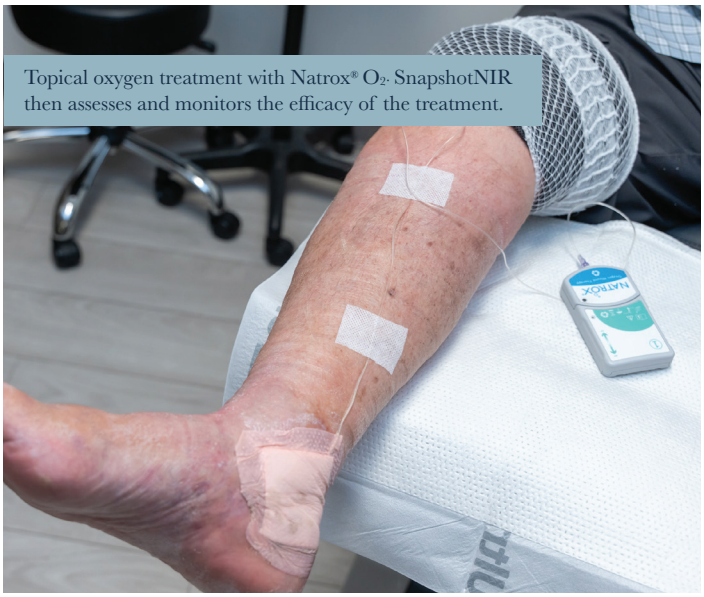
As time has passed, Dr. Kooyman has taken several more Snapshot images of this patient, and she continues to trend very well. "The SnapshotNIR device is such a great tool to use for understanding what's really going on in wounds, especially when they start acting in a way that's not typical," he says.

TIMELY DIAGNOSTICS

The team at WCE Specialty has also found SnapshotNIR to be valuable when trying new or unproven modalities in wound healing. For example, Dr. Wahab is currently studying the efficacy of topical oxygen on wounds, and she's using Snapshot to track treatment progress.

"I had one patient with a diabetic, lower extremity non-healing wound on the fifth toe, lateral side," she says. "I took a Snapshot image, then applied topical oxygen for one week. When I re-imaged the wound, it looked really good. It was improving from the treatment."

While Dr. Wahab was encouraged by the wound's healing progress, she was also intrigued by what else the Snapshot images were showing. "Not only was the wound healing but what we really noticed was that the top of the patient's foot actually lit up with more oxygenation, too," she says. "And from that, we've been able to understand that applying the oxygen topically on the wound actually has a systemic effect for the whole foot, not just the wound itself."



Topical oxygen treatment with Natrox® O_2. SnapshotNIR then assesses and monitors the efficacy of the treatment.

From the captured images, it was clear that hemoglobin was being recruited from other parts of the patient's body to the actual limb. "So, again, thanks to Snapshot, I was able to see things that the naked eye is unable to see," says Dr. Wahab. "And this supported my decision to continue to use that topical oxygen product until there's a plateau, at which point I'll try changing my treatment algorithm to something else."

It's this type of point-of-care testing that has allowed Dr. Wahab, Dr. Kooyman and other members of the WCE Specialty team to feel confident in their treatment choices and timelines. "The patients we see at WCE Specialty are often facing situations where they can lose a limb. So if you don't have the ability to image, and you're waiting days, or even weeks, for a CT scan or an MRI or a culture, that can gravely affect patient outcomes," says Dr. Wahab. "Time is so important when it comes to someone's health, and so SnapshotNIR makes a world of difference in improving patient outcomes, because it helps me make an informed decision, right then and there. To me, that's the most valuable thing." ■


Snapshot NIR

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300 - 1210 8St SW, Calgary, AB CANADA T2R 1L3
1-403-455-7610 | TF: 1-833-SEE-KENT (1-833-733-5368)
info@kentimaging.com **kentimaging.com**

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