

# Changing Vein Access Method—Yes We Can

By: Nizar A. Mullani



Imagine getting into your car (or truck) and it fails to start 26% of the time after two tries. Now imagine having to call a tow truck to come and help you get the car started, only to find out that sometimes you may have to call yet another tow truck. Frustration is a very mild word to describe this experience once, but to experience it every day of your career can become intolerable. My guess is you would probably junk the car and replace it with a more reliable one.

So, why is it that we tolerate this kind of failure rates when it comes to accessing veins?

Why is it that we subject our patients to this painful experience with no recourse to do what you would have done with your faulty car? How many times have you stuck a patient knowing very well that you are hunting for a vein that you cannot see or palpate?

Well, it is time for Change, and, yes we can. It is time for us to use technology to help us improve this simple procedure and reduce the pain to the patient. In the process of doing this, we will reduce the incidence of infection due to multiple sticks and reduce the wastage of supplies such as needles, IV sets etc.

In a recent randomized clinical trial carried out at Boston Children's Hospital (1), the staff in the Pediatric Emergency Department found that the current method of vein access in children has a success rate of 74% after two tries. This means that 26% of the time, a second person has to be called in to attempt an additional two times. Failing this, the patient may require a procedure such as a PICC line, central line or



cut down to access the vein.

The second arm of this randomized trial used a Veinlite™ (2,3) to assist with finding the vein during vein access. They found that the success rate improved to 85% for two tries. This translates into one out of seven failures, which is almost half the number of failures of the current standard.

The Veinlite™ devices are designed to show superficial veins anywhere on the body. They are also designed to help secure the vein from rolling and stretch the skin for improved traction. Accessing a vein can be a simple process of inserting the needle in the vein that is visualized with the Veinlite™ as shown in Figure 1.

## References

- (1) Katsogridakis YL, Seshadri R, Sullivan C, Waltzman ML. Veinlite transillumination in the pediatric emergency department: a therapeutic interventional trial. *Pediatr Emerg Care.* 2008 Feb; 24(2): 83-8.
- (2) Veinlite™ is a registered trademark of TransLite LLC, Sugar Land, TX 77478 – [www.veinlite.com](http://www.veinlite.com)
- (3) Mullani N.A.: Veinlite: A New Device for Visualizing Superficial Veins Using Side-Transillumination. *Am Coll Phlebol* 1999; Scottsdale, Arizona (Abstract)

**Figure 1.** The small portable Veinlite™ EMS is shown with the vein transilluminated in dark line in the opening. The light used in the device is absorbed by the venous blood and the vein is seen as a darker color. By pressing down on the device, the vein is closed thus creating a localized tourniquet effect. Pushing back on the device stretches the skin and secures the vein at the access opening. The needle is inserted in the vein at the point of the access area.

## Disclosure

Mr. Mullani is the inventor of the Veinlite™ device and is the president of TransLite, LLC. He is a retired professor from the University of Texas Medical School, Houston, Texas, where he conducted research in medical imaging with Positron Emission Tomography (PET).

**For more information, visit: [www.veinlite.com](http://www.veinlite.com) or call: 281-240-3111**

# On behalf of your patients we want to thank you for using the Veinlite®

They love it. They are constantly using it on all types of patients; pedis, geriatrics, and bariatrics. They also find that it helps locate veins on darker skinned patients. Thanks!

**Ruben Pena, Supply Chain Services Tech II, Emergency Department**

Thank you for all your help. I took my mother into my cardiologists office and had the nuclear tech who used the Veinlite® on me take a look at her. He spent at least 30 minutes working with her showing her all the veins he could get using it. It looks like this will be a huge blessing to her. The technician at the office was VERY confident in the product and endorsed it 100%.

**Thank you! Russell Vance**

Hello Mr. Mullani, this is David from the VA San Diego. I referred a supervisor from the Spinal Cord Injury (SCI) department to purchase a Veinlite® from you.

The nurses and supervisor attempted to start an IV on a patient. After missing 7 times they called Nuclear Medicine. I went down with my trusty light and placed a 22g IV in his forearm on the first try. It's business as usual. Thanks. They should buy at least two of these things from you. Thanks for your help. Talk to you soon.

**David Suarez, VA San Diego**

Dear Mr Mizar Mullani, I am writing to inform you that I purchased your Vienlite Ems at the Cool topics of emergency medicine April 26th and I love it. Yesterday I used it twice on two patients that the nurse stuck and they were unsuccessful. One was a Pedi and the other was a very obese lady. The lite worked fantastic. I got access on first attempt! I showed the lite to my director and hope he could purchase some for the department. The doctors were impressed with my lite as well.

**Amanda Miller Pekcanli RN BSN  
Clear Lake Regional Medical Center**

Veinlite®(EMS) is in use in my practise every day. It works very well, making possible even the most difficult vein approach, impossible to achieve traditionally. Its usefulness can be seen particularly in children and obese patients. As an anesthesiologist I recomend Veinlite® to my fellows.

**Best regards, Robert Wojciechowski MD**

It really helps me on small ill children, Every one that sees it are equally impressed. ..I keep showing it off, I know of one sold here for the IV team member. She loves it equally as much as I do.

**James Lee EMT-PARAMEDIC**

I have a three year old machine Veinlite® and I love it. I use it at least twenty times a day in the ER where I work. I and my co-workers, who call on me all the time for hard sticks, really use this alot.

**Kenneth Lowder RN**

As an interventional radiologist, I work regularly with patients with difficult peripheral vein conditions. These would include dialysis patients, patients whose veins were removed for bypass surgeries, and patients who have thin and brittle veins due to protracted chemotherapy treatment. For these people, the multiple attempts to access veins not only causes physical pain, but also creates serious psychological stress. However, since we have started using the Veinlite® in our department, our

rate of unsuccessful puncture attempts with these difficult vein conditions has plunged from eight to ten misses to only one or two. Our patients are excited by this seemingly small, but very effective innovation. I can truly recommend the Veinlite® to my colleagues that deal with difficult vein conditions.

**Dr. Martin A Funovics, Radiology Dept.,  
Medical University of Vienna**

I just have to share with you what happened yesterday. It was such a great day for me. I was working in ER, in rm 10. Luckily, I was not super busy when one of the other nurses approached me and asked me if I could try to start an IV on an extremely difficult stick patient, and if I could use my "veinfinder tool". I said sure. (Always looking for a way to show it off). So, I went into the room and there were three nurses in there, and two doctors. I sat down and began looking at the woman's arms. Nothing to be seen there. One of the doctors then asked me what I had there, and I told him, but the other nurses also began to explain to him what I had. So, the other doctor said no, that ain't going to work, so I should just go

get the ultra sound machine or try an EJ. I didn't say a word, the other nurses said wait, just wait, she can do it. I know she can. And, lo and behold, I found a vein that looked about as small as a varicose vein in the forearm. Lucky for me, it was fairly straight. I actually got a 24 gauge IV placed, and got labs. It flushed great too! Everyone was like saying WOW! you are awesome, thanks so much, the best part was when this very sick patient looked up at me and smiled, and said thank you so much. .. Such a great tool, as you said for decreasing patient pain, for allowing us to get the much needed medications without delay into the patient, and saving money in supplies to the hospital. Well, just wanted to share.

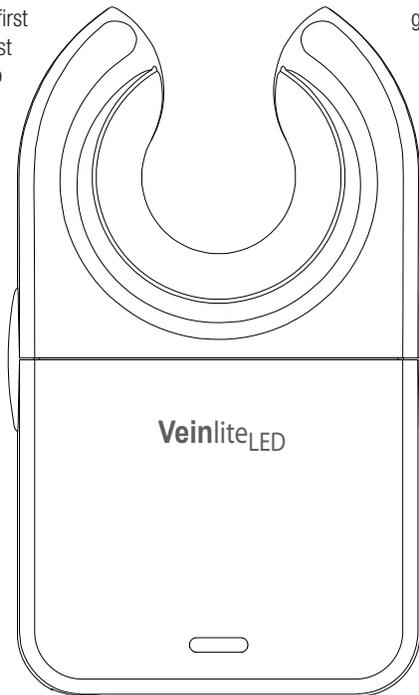
**Linda Sperling RN, BSN**

I just wanted to tell you that I came off like a hero with the Veinlite® again. I was picking up a patient at Miriam hospital. As I was waiting a nurse I knew walked by and I said hi to her. She mumbled something about a tough stick. I followed her into the supply room and Asked her if she said she had a tough stick. She said yes and I asked if she would like me to get the Veinlite® out of my truck. She said sure it was worth a shot. I got the Veinlite® and met her in the patients room. She thought she had a possible site. We looked the area over with the Vein-

lite® and found the vein was horizontal and we only had a little

more than an inch of suitable vein to use. She adjusted where she was going to start the IV and she had a good stick and a patent IV. The family was impressed after having witnessed the previous failed attempts. The nurse thanked me and My partner and I went and picked up the patient we were there for. Being able to help out the ER nurses goes a long way for us. They sometimes think less of Private Ambulance EMT's then they do Town Rescue. Being able to help them out helps them think better of us the next time we bring in a patient. Also, I wanted to let you know that I am using the Veinlite® to help some students Practice palpating veins for IV access. They palpate for a vein and mark it off. I double check with the Veinlite® and we can both see if the student was correct with where they thought the vein was that they palpated. Nothing subjective about a light showing were the vein actually is.

**Amy Fosdick**



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