Veinlite EMS®

Veinlite EMS Light Shield  Veinlite EMS Pediatric Adapter

Attachments
Two attachments are included with the Veinlite EMS. The first is a snap-on light shield to reduce interference from bright overhead lighting. The second is a snap-on adapter to reduce the size of the viewing area for use with infants. Please read the included instructions for attaching the adapters.

Veinlite EMS Specifications
- Number of LEDs: 12 orange and 4 red LEDs
- Weight without batteries: 1.5 oz
- Dimensions: 115 x 55 x 21 mm
- Batteries: 2 AA Alkaline Batteries

Warranty
The Veinlite EMS has a one year parts and labor warranty. In order for this warranty to be activated, you must register the Veinlite EMS at the time of purchase either by submitting your registration via www.veinlite.com or by calling TransLite at the number below.

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INSTRUCTIONS

Introduction
The TransLite Veinlite™ EMS is a hand-held battery powered transillumination device for finding veins and assisting in vein access. It utilizes the patented* transillumination technique known as side-transillumination, which enables the Veinlite EMS to uniformly illuminate a small region of skin and subcutaneous tissue, anywhere on the body, without any areas of shadow. The shadow-free side-transillumination technique allows better visualization of veins than any other transillumination method. The design of the Veinlite EMS is such that during vein access, the vein is visualized, skin is stretched and the vein is sequestered to keep it from rolling.

Applications
- Finding veins and assisting in vein access in all patient populations
- Venous access in patients with a history of difficult venous access or fragile veins
- Easier visualization of veins in dark skinned patients

Side-Transillumination Technique
In side-transillumination, the patented* new transillumination technique, light shines into the skin from outside the area of interest. A ring of bright light is focused below the skin surface and directed towards the ring's center. The focused light creates a volume of illumination, with the central focus acting as a virtual light source under the skin. This technique achieves uniform illumination of a small region of tissue anywhere on the body and does not create the shadows that limit the usefulness of other transillumination techniques. The LED light colors are designed to be absorbed by venous blood and veins show up as darker lines in the field of view.

Description of Veinlite EMS
The Veinlite EMS has 16 light emitting diodes (LEDs), mounted in a circular array and pointed towards the center of the circle. There are 12 orange LEDs and 4 red LEDs. The light from the LEDs shines through a clear plastic window [1] so that it is focused under the skin. There is an opening in the circle to allow access. The LEDs are spaced around the circle for optimum vein imaging.

The two colors of the LEDs (patent pending) were selected for the specific characteristics of the light they emit, resulting in optimal visualization of veins at varying depths and through skins of different pigmentation. The orange LEDs are optimal for viewing veins in light skin patients, whereas the red LEDs are optimal for viewing deeper veins in darkly pigmented skin. The LEDs can be turned on and off by pressing the orange colored button [2] located on the side of the Veinlite LED.

*US Patent Number 5,146,923.

Operating Directions
1. Place the Veinlite EMS inside the disposable plastic cover. Wipe the area of the cover coming in contact with the patient with 70% isopropyl alcohol or other medically accepted disinfectant. Check the cover to make sure it is intact.
2. Turn off any overhead fluorescent lights as these may interfere with transillumination. Low power, non-fluorescent side lighting should be used instead.
3. Visually locate the region of the skin you wish to examine for veins and then place the Veinlite EMS over it, with the LEDs facing down towards the skin.
4. Apply gentle pressure to the Veinlite EMS to ensure it is in contact with the skin.
5. Depress the orange button [2] to switch on the LEDs.
6. To access a vein while viewing with the Veinlite EMS, place the Veinlite EMS over the vein. Rotate the Veinlite EMS so the opening in the circle of LEDs faces away from the heart. Apply gentle pressure on the Veinlite EMS to sequester the vein. Pull back slightly on the Veinlite EMS to stretch the skin and provide traction. Insert the needle in the normal way.
7. Discard the disposable plastic cover after each patient and switch off the Veinlite EMS when it is not in use.

Position of Veinlite EMS while looking for vein

Position of Veinlite EMS while accessing vein

CAUTION
- DO NOT LOOK AT THE LEDs WHEN THEY ARE SWITCHED ON!
- DO NOT SHINE THE LIGHT FROM THE LEDs INTO ANYONE'S EYES!

Disposable Plastic Cover
The Veinlite EMS should always be used with its disposable plastic cover to protect it from contamination and to prevent the spread of infection from patient to patient. These plastic covers are not sterile. Before using Veinlite EMS, always wipe any part of the cover coming in contact with the patient with 70% isopropyl alcohol. The Veinlite EMS is shipped with 50 plastic covers. Additional covers can be ordered from TransLite or any of its authorized dealers listed on www.veinlite.com.

Low Battery Indicator
When the batteries run low, an orange light will come on behind the orange switch [2] to remind the user to change the batteries. Approximately one hour of battery use is left when the orange light first comes on. For optimum lighting please replace the batteries when the low battery indicator turns on.

Installing the Batteries
The Veinlite EMS is powered by two AA alkaline batteries. The batteries will provide between 5 to 6 hours of continuous usage depending on the type of battery used. Light output from the Veinlite EMS will decrease as the batteries become depleted. For optimum imaging of veins, replace the batteries as soon as the low battery indicator light turns on. To replace the batteries, slide the battery cap [3] off and carefully remove the batteries. Replace with new AA batteries and slide the battery cover back into place.

Cleaning Directions
Wipe the device with a damp cloth. Always use the disposable plastic cover to protect the device and to minimize the spread of infection. Whenever necessary, the Veinlite EMS should be cleaned using 70% isopropyl alcohol or other medically accepted disinfectant.

CAUTION
- ALWAYS USE THE DISPOSABLE PLASTIC COVER!
- DO NOT IMMERSE THE DEVICE IN LIQUID!
- DO NOT AUTOCLAVE THE DEVICE!

Attaching a Lanyard
A lanyard can be attached to the Veinlite EMS, via the hole at the bottom of the unit [4]. Use a thin cord for this purpose.

Troubleshooting
Before returning the Veinlite EMS to TransLite for repair, please call or e-mail to obtain a return authorization code and shipping information. No refunds will be given for unauthorized shipping.

- LED failure
The LEDs are designed to have an excess of 50,000 hours of operation. They should not require replacement during the life of the Veinlite EMS. If an LED fails, the unit is designed to continue operating using the remaining LEDs, with only a slight decrease in intensity of light output. In case of multiple LED failure, please contact TransLite to arrange return for repair.

- No light from any LEDs
Replace the batteries and depress the orange button [2] to switch on the LEDs. If the LEDs do not switch on, call TransLite for assistance.