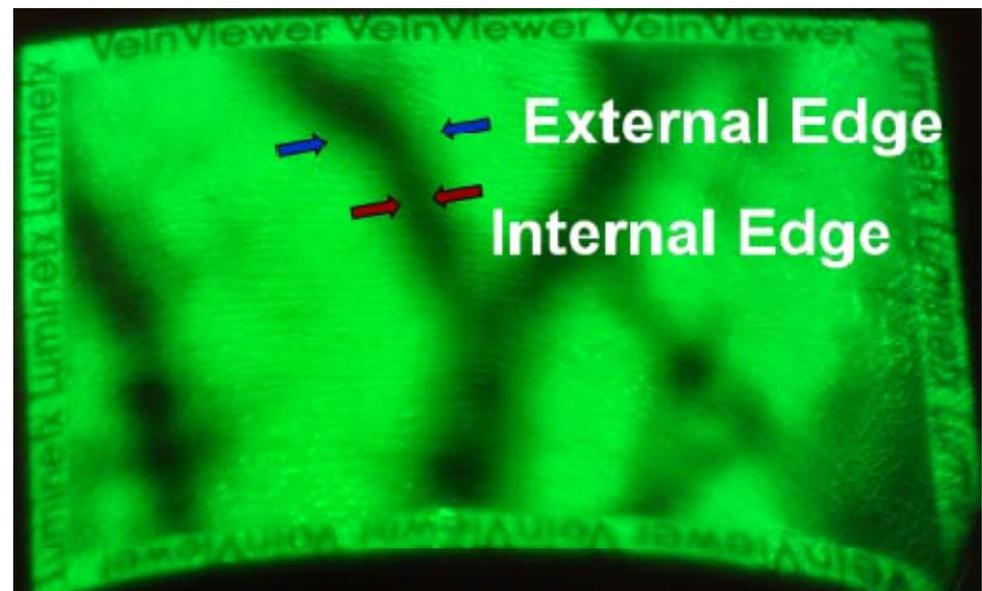
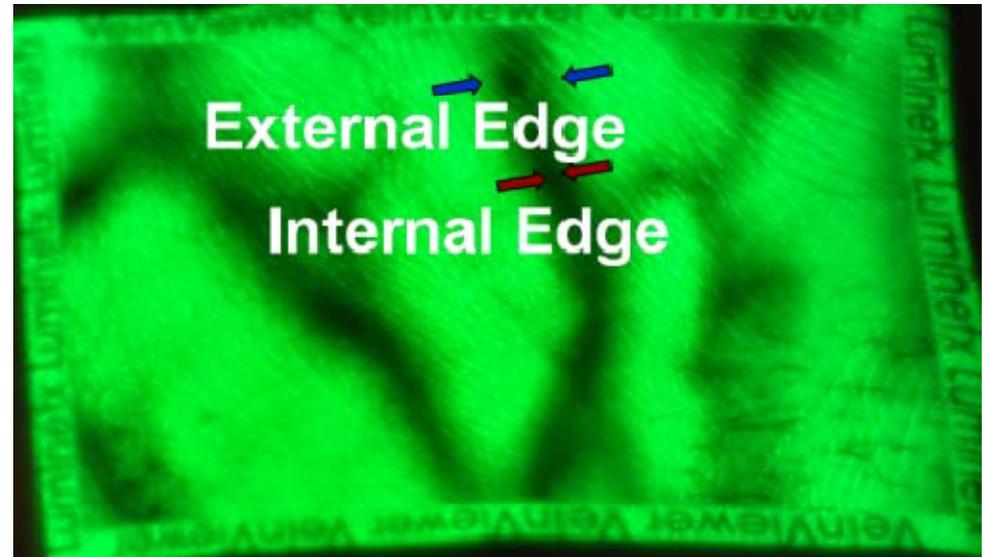


## Aim for the Center

When you view your veins with any imaging device such as VeinViewer there is a normal magnification effect

- It is more pronounced for deeper veins
- With VeinViewer this effect is also present
- The VeinViewer image you see has a Internal Edge (IE) and an External Edge (EE).
- The Internal Edge **is the most accurate representation** of the true vein width, however, it too has a normal magnification effect depending on the depth of the vein. Take this into account.
- “Aim for the Center” and use your skills to determine the best gauge of needle to select.



## Venus Plexus or Stacked Veins

- An area where several smaller veins “criss-cross” or join together to form what you may think is a single larger vein
  - Tip:** Check the refill rate of the viewed vein. Typically a single vein will refill quickly due to pressure. A plexus or stacked vein will refill slowly and more diffusely.

## Skin Trauma

- An area where the skin has been cut, scratched badly, burned or injured
  - Tip:** These kinds of conditions can affect the VeinViewer image. It is advised to choose another site for IV access if possible

## Image Background & Image Quality

- The greater the amount of VeinViewer image that is on the skin, versus “spilling over” to the surrounding area the better the image quality
  - Tip:** Ensure your image is aligned perpendicular to the assessment area to provide the maximum amount of VeinViewer image on the patient’s skin
  - Tip:** For neo-nates “cup” your hands around the area being viewed to focus the VeinViewer image light more tightly and allow less to spill over
  - Tip:** Avoid backgrounds such as a stainless steel table, super bright white sheets, or a very wet surface that may reflect too much light.

## Sudden Image Drop Out

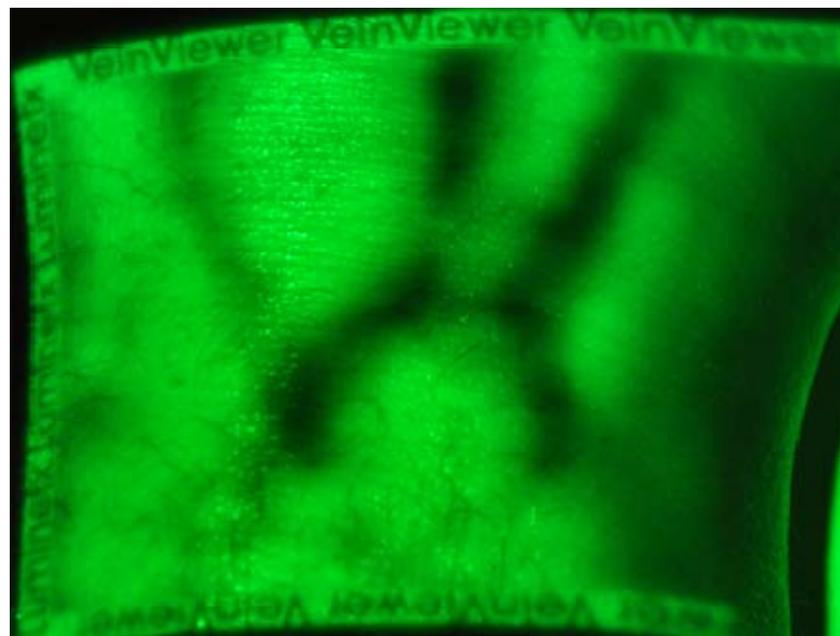
“Why does the image of the vein sometimes suddenly just disappear?”

### Vein Depth

- In some cases the vein may suddenly dive deeper and thus the vein image you see disappears abruptly.

### Vein Masking

- In some cases a “sheath” of connective tissue may be over a section of the venous structure. This can cause the vein image to disappear suddenly.



**In both of the these cases the information you are receiving may indicate this is not an ideal place for an IV.**

## The Effect of Temperature

The venous system responds to changes in temperature.

- When the vein is subject to colder temperature it tends to “constrict” and fall deeper away from the surface of the skin
- When the vein is subject to warmer temperatures it tends to “expand”, increasing in diameter.

Notice on the right the top image with marked vein and the change in that same vein when it is subjected to cold temperatures.

- Remember this effect should you be in a cold area. You can correct this using a warming compress or moving to a warmer environment if possible.



## The Effect of Marking with a Gel Pen

One of the choices you have in technique with VeinViewer to “mark and move”. This is to mark the location of where you wish to place the IV and then move the device to perform the placement of the IV.

- There is a known issue with the use of “gel type” ink pens
- This kind of ink affects the VeinViewer image causing the vein image to disappear
- Remember this effect should you wish to “mark and move”.
- **Do not use “gel based” pens to mark your site**
- Standard ballpoint pens are appropriate.

