Infiltration and Extravasation

When medication or fluids are infused into the vein, they may accidentally leak into the tissues surrounding the vein. This can cause the tissue around the vein to die.

Infiltration and extravasation are serious issues. About 3% of patients being infused with medicine experience this profoundly severe problem.

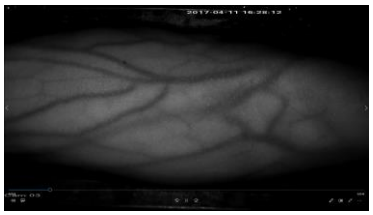
The Vein-Eye Carry detects hemoglobin in the blood. (Hemoglobin is a red protein responsible for transporting oxygen in the blood of vertebrates. Its molecule comprises four subunits, each containing an iron atom bound to a heme group.)

This detection of hemoglobin allows the display of the vein onto a FHD tablet for easy viewing and monitoring.

Our technology is perfectly equipped for managing an infusion and for detecting when medicine is leaking from a vein.

1. The patient moving their arm or hand while there is infusion, or the healthcare worker accidentally poking a 2nd hole in the vein when installing the IV, can cause the medicine to leak from the vein into the surrounding tissue.
2. When the medicine leaks from the 2nd hole in the vein, there will also be leakage of blood.
3. The Vein-Eye Carry will immediately display the leaking medicine and the hemoglobin.
4. With the Vein-Eye Carry, the healthcare worker will be able to leave the patient's side and periodically check the Vein-Eye Carry tablet for leakage.
5. In a chemotherapy ward, there could be 30 patients with 30 displays on their tables showing the infusion. A nurse could quickly glance at each display to check for infiltration or extravasation.

Our proposed solution is to set up and monitor the infusion. The Vein-Eye Carry can be mounted on an available wheelchair, hospital bed, infusion chair or bed, or chemotherapy chair.



The images below are a bit disturbing. Vesicant medication, if leaked into surrounding tissue, can cause the tissue to die (necrosis).

https://www.bing.com/images/search?q=iv+infiltration+vs+extravasation&qpvt=iv+infiltration+vs+extravasation&tsc=ImageHoverTitle&form=IGRE&first=1

- The key difference between infiltration and extravasation is the type of medication or fluid that has leaked into the tissues surrounding the vein.
- Vesicant fluids can cause necrosis or ischemia and the surrounding tissue to die.

Some common examples of vesicant medications and fluids include **chemotherapy, vancomycin, potassium chloride, calcium gluconate, dopamine, and Dilantin.**

- With infiltration, a non-vesicant medication leaks into the surrounding tissue.
- Non-vesicant fluid does not cause ischemia or necrosis.

Some examples of non-vesicant fluids are normal saline, lactated ringers, many antibiotics, solumedrol (steroid), Ondansetron (Zofran) – anti-nausea drug, and furosemide (Lasix) – IV diuretic. (3)