

# LEAF HEALTHCARE:

## Innovating Pressure Injury Prevention

**L**eam Healthcare offers the only comprehensive, wireless mobility monitoring system to prevent costly and life-threatening complications of patient immobility, such as pressure injuries, pneumonia and DVT. The Leaf Patient Monitoring System tracks all patient movement — in bed, in a chair and as they walk. The Leaf System monitors how well patients are moving in bed, as well as the distance a patient walks, the number of steps taken, and the length of time ambulated to determine whether the movements meet patient-specific mobility goals. Leaf was honored as one of the “10 Most Promising Patient Monitoring Solution Providers of 2017” by Healthcare Tech Outlook.

### How does it Work?

The small, lightweight, and waterproof Leaf sensor is applied to the patient’s chest, where it is virtually unnoticed. The sensor automatically monitors patient movement through all stages of the mobility continuum:

- *In Bed:* The system monitors and records patient position (including upright angle) and notifies staff when interventions are needed to optimize a patient’s position in order to prevent pressure-induced tissue ischemia.
- *Sitting:* The system tracks time spent seated, monitors pressure distribution, and notifies staff when repositioning is necessary to ensure optimal pressure offloading while seated.
- *Standing:* The system recognizes, records, and optionally alerts staff when patients get out of bed and begins to ambulate. Leaf automatically suspends prescribed turn protocols until the patient is back in a bed or chair.
- *Walking:* The system monitors and documents the improvements in a patient’s mobility level over the course of a hospitalization to help track functional improvements and suitability for discharge.

### Architect behind Leaf Healthcare

**Barrett Larson (MD)** is the **co-founder** and **chief executive officer** of **Leaf Healthcare**. A physician-entrepreneur, he is passionate about developing new technologies that improve patient care and reduce healthcare costs. Larson earned his medical degree from Stanford University, where he also did his residency training in anesthesiology. Dr. Larson is an Assistant Professor in Anesthesiology at Stanford University, the Director of the Stanford Anesthesia

The Leaf System is the first wireless technology that continuously and precisely monitors patient movement and determines whether the patient has moved sufficiently to prevent pressure

injuries. A large, randomized-controlled study involving the technology was recently published which demonstrated that that patients using the Leaf system are 73% less likely to develop a pressure injury.



Barrett Larson, Co-Founder & CEO

Innovation Lab (SAIL), and the recipient of several medical technology innovation awards. He launched Leaf Healthcare after discovering an enormous opportunity for wearables to transform the care of hospitalized patients.

### Effectively Reducing the Pressure Injuries

Pressure injuries are among the nation’s most common facility-acquired conditions, affecting more than 2.5 million patients a year and adding \$11 billion to annual U.S. healthcare costs. Studies have found that patients using the Leaf System are almost 4x less likely to develop pressure injuries than patients who don’t have Leaf. The standard of care to prevent pressure injuries requires nurses to turn patients every two hours, a routine that is challenging in hospitals dealing with nationwide nursing shortages. The Leaf System offers the first effective technological solution to the problem by monitoring patient movements, assessing whether those movements are adequate to allow the skin to reperfuse sufficiently to prevent a pressure injury, and notifying nurses about patients who need turning assistance.

### Distinctive Offerings from Leaf Healthcare

The **Leaf Patient Monitoring System** is unique in the market. Some companies attempt to monitor bedridden patients but cannot determine if their movements have effectively offloaded pressure, or if the patient has remained in a new position long enough to allow for

“ We are advancing the standard of care for patient mobility monitoring ”

of patient turning (turn frequency, turn magnitude, and time off a previously compressed area) and enables providers to intervene before problems occur. This is incredibly important since reimbursement is tied to patient outcomes. Automated reports at the patient, unit, and facility level provide managers actionable data to identify gaps in care and sustain higher levels of adherence to prescribed mobility programs. Daily Leaf reports help nursing leaders drive adherence to mobility protocols, identify training opportunities, track performance, and have even been used to optimize staffing levels.

### Future Prospects

Leaf Healthcare will continue to introduce innovations to its Leaf Patient Monitoring System. What began as a solution to the pressure injury problem that plagues the healthcare industry is quickly evolving into a system that can monitor patients throughout the full patient mobility continuum – from bed-ridden to fully ambulating patients. Leaf’s technology makes it possible to electronically monitor and automatically document a patient’s mobility progression to help avoid the many serious complications associated with immobility. By maximizing patient mobility, patients can leave the hospital faster, healthier, and far less likely to require readmission. [i](#)

proper reperfusion of compromised tissue. Other products work like egg timers and notify nurses when a pre-set time period elapses. The Leaf System monitors and tracks actual patient movement, determines its effectiveness and records the total patient movement history – which can be useful in assessing workforce productivity and conducting a root cause analysis if an immobility related patient incident occurs. Leaf’s technology protects patients and helps to optimize staff workflow.

### Benefits for Clients

Beyond the unique monitoring technology, Leaf has developed the **Integrated Positioning Index™**, a new, accurate way to assess and manage pressure injury prevention efforts. The index is the first tool that precisely measures the effectiveness

[www.leafhealthcare.com](http://www.leafhealthcare.com)

