

Predictive Biomechanical Analytics



Baltimore Ravens are Using DARI to Prevent Injuries and Keep Most Valuable Players in the Game

Client Situation

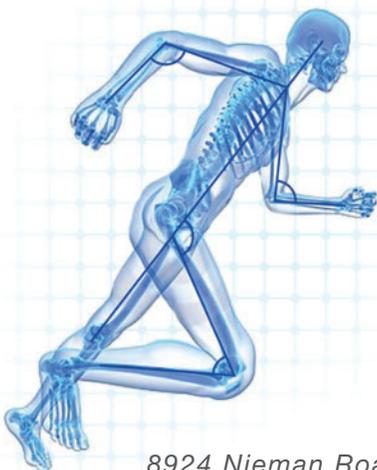
In 2015 the Baltimore Ravens were projected to be one of the best teams in the NFL, but optimism turned to disappointment when player injuries stalled the season. With more than 16 athletes on the IR at one time, the Ravens needed to take action. It became imperative to reduce the injury rate and, in turn, improve the team's chances for winning games.

DARI Solution

The Ravens installed the DARI system in the organization's performance facility in order to screen each athlete's biomechanical profile weekly, identifying problems before they manifest as pain. Given professional athletes' high performance focus, they are able to modify movement patterns to strengthen targeted muscle groups and prevent injury. DARI is the only system able to track these finite motion changes and deliver the data to improve athlete's health.

Business Impact

Heading into the 2016-17 season, the Baltimore Ravens' player contracts total more than \$150 million. Using DARI to keep athletes on the field is simply a business necessity. The Ravens are expecting similar results from DARI as recorded by an Australian football team: the ability to predict injuries weeks before they occur and the opportunity to implement action plans for injury avoidance. For the Ravens, reducing the injury rate can mean the difference between winning and losing.



◀ See Injuries Before They Occur

DARI identifies potential injuries two weeks before they happen, giving athletes and trainers a head start on avoidance.

TIME IS MONEY

Athletes are pulled in a million different directions, all of them very important and critical to the athlete's performance. Time to evaluate an athlete is a critical element. A trainer, physician or physical therapist may have as little as five to ten minutes of interaction per athlete.

Rather than spending all of that time conducting a subjective analysis of the athlete, DARI gives pro sports teams the ability to capture a full body evaluation in less than five minutes. A full team overview, complete with scores for individual athletes, is available the same day.

DARI allows athletes and those who work with them the ability to use their time on crafting solutions for better performance.

Predictive Biomechanical Analytics



Cerner Corp. Saves \$550,000 on Employee Joint and Muscle Health Costs with DARI

Client Situation

Cerner, an electronic medical record company, is one of the largest employers in Kansas City, and self-insures its 22,000 employees. To reduce insurance costs, Cerner decided to track employees' motion health. They wanted to focus on musculoskeletal injuries —the most significant area of expense in workplace health. Reducing joint and muscle injuries would reduce costs, and also increase work productivity.

DARI Solution

Two DARI systems were installed at two Cerner campus locations. Employees were screened as part of an annual physical, or at the time of injury. Over the course of one year, thousands of employees were screened, and in 16 months, Cerner was able to identify 1,160 people with musculoskeletal health risks. In many ways, the DARI system became an on-site clinic, meeting high-patient workflow demands.

Business Impact

Because Cerner is self insured, the company was able to accurately document the effects of screenings on health care expenses. At the end of one year, Cerner found they were able to reduce healthcare costs for musculoskeletal injuries by 30 percent. And over 16 months, Cerner identified \$550,000 in preventable health costs. The DARI system's early detection and pinpoint accuracy allowed employees to choose non-surgical treatments and significantly reduce the need for high cost imaging services.



◀ 30% reduction in muscle and joint care costs

Bone and joint health costs account for **\$950 billion** a year in the U.S.

ON THE JOB

Musculoskeletal injuries and disorders are one of the top cost drivers related to any company's healthcare expenses. These disorders are associated with high costs to employers, such as absenteeism, lost productivity, increased health care disability, and workers' compensation costs.

According to the CDC, musculoskeletal issues account for nearly 70 million physician office visits in the U.S. annually, and an estimated 130 million total incidents treated during outpatient, hospital and emergency room visits.

It's been reported that annual direct and indirect costs for bone and joint health care are \$950 billion — 7.4% of the gross domestic product of the U.S.

Predictive Biomechanical Analytics



MU Missouri Orthopaedic Institute

Missouri Orthopaedic Institute Measures Recovery and Records Revenue Growth

Client Situation

The University of Missouri Orthopaedic Institute (MOI) wanted to find a method for objectively tracking patient outcomes. Gathering, documenting and tracking motion takes too much time with traditional technology; so most physicians are forced to rely on asking a patient to fill out a basic questionnaire about pain levels, movement and more – a completely subjective report.

DARI Solution

A DARI system was installed inside MOI's physical therapy department. Patients were screened before treatment, a process which takes less than five minutes. This allowed MOI to document patient progression through the rehabilitation process following surgery. Doctors are now able to document and compare the impact of new surgical techniques and recovery therapies, and transfer this data into research for publication.

Business Impact

For the first time, DARI allows MOI to routinely and objectively measure patient outcomes. Surgeons are able to educate patients about expected improvement potentials prior to surgery, and help demonstrate measured progress in movement during rehabilitation. MOI discovered the DARI system generated new revenue by attracting new patients. And the new breakthrough technology is an effective recruiting tool, drawing more physicians to MOI.



◀ **\$233,333.33 in New Revenue**

Tracking patient outcomes results in better treatment and measurable business growth.

BETTER OUTCOMES

The focus for any healthcare provider is delivering better patient outcomes. But, because everyone is different and responds uniquely to treatments, even the most advanced treatments can have varying outcomes. To track results, healthcare providers have had only the feedback provided by patients; until now.

For the first time, physicians and patients can receive clear data to show improvements in orthopedic health and performance. Rather than rely on the response to the questions, "How do you feel?" healthcare professionals can report measurable data, such as, "You've gained more than 30 degrees of range of motion in your knee." The data allows physicians to address specific target areas so patients can more effectively improve movement. That's a better outcome.

Predictive Biomechanical Analytics



DARI is the most advanced data management system for human movement in the world

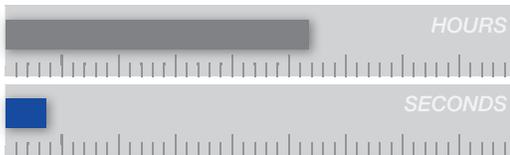
DARI is a biomechanics analytics system that captures, processes and analyzes human performance for musculoskeletal health. DARI's efficiency and precision leads to better performance, and better information leads to better decisions and outcomes for patients.

The DARI System

DARI is a data analysis system for human movement. The technology captures a patient's musculoskeletal health, software analyzes a series of movements, and custom reports allow immediate application of therapies to address target areas.

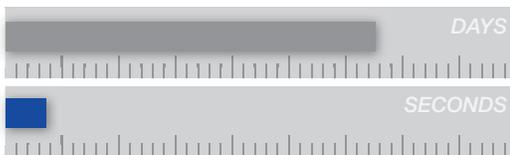
What We Provide

- An easy-to-use markerless 3D motion capture system installed in any facility or indoor setting.
- Access to our online predictive biomechanical analytics software that stores, processes and reports on all collected human movement data.
- Training and technical support from DARI's team of professionals, including installation, interpretations and customized report design.



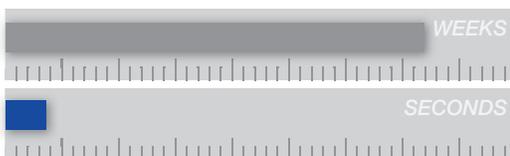
What would take others **hours** to collect.

DARI does in seconds.



What would take others **days** to process.

DARI does in seconds.



What would take others **weeks** to report.

DARI does in seconds.

DARI DELIVERS

- Better patient outcomes from objective data
- Ability to compare surgical and treatment techniques
- Additional revenue
- Patient longevity and loyalty, from surgery to therapy, and annual physicals
- Business plans for easily merging DARI into current workflow

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