INSIGHTS IN MOTION

Clinical Workflows
ASMI Partnership
Joint Vulnerability Report

Each month we hope to bring to you new and exciting news from the world of DARI Motion. Our goal is to bring you the impactful topics that our community desires. This month in motion health we plan to focus on the following topics listed below;

Clinical FOCUS

From the state of Texas, learn all about how one hospital is using DARI to reduce clinical workloads and increase revenue in this odd CoVid environment.

Wise Health System

Performance FOCUS

With advancements in high speed capture, DARI is now the go to motion capture system for Dr. Glenn Fleisig at ASMI. He has been waiting over 10 years for this! Find out why.

ASMI

HOT TOPIC

There is new modeling from DARI. Understand in more detail how DARI creates its Joint Vulnerability logic and what it means for your data review.

RIGHT SHOULDER 56% LEFT SHOULDER 28%
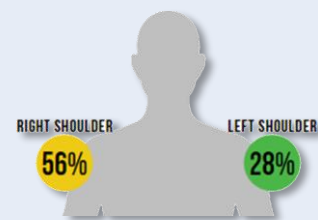
For more informative content like the articles listed above, visit our online media content by clicking below.

More Articles!

DARIMotion.com

Wise Health System

Clinical F⊙CUS

In Decatur Texas, Wise Health System was able to find upfront value with the DARI system. The regional hospital has hundreds of therapy visits a month and was looking to create more value for their current patient population. DARI was able to quickly help their clinical staff determine medical necessity for therapy and maximize their patient engagement.

Brett Braziel, Director of Outpatient Therapy Services, is continually able to bill CPT codes that wouldn't be possible without a DARI system that help generate new revenue streams in a COVID "touchless" environment. With DARI a markerless motion capture system a patient can be used while still practicing social distancing!

One of the CPT codes used by DARI is the 96000 3D motion capture code. With DARI being the only FDA cleared markerless motion capture system it is the only solution that can be used and not be experimental. This code along with others can help generate new revenue for any hospital.

👁 The Clinical Eye

DARI HEALTH

Useful Case Studies From DARI Users In the Field.

Katelyn Harris – PT, DPT

"This is the most interesting case I have had recently: The patient is a collegiate baseball player s/p shoulder labrum repair on his throwing shoulder. When we performed the assessment on him initially, it red flagged his R ankle on the testing platform as well. As clinicians we know an injury to the thrower's stance leg can have detrimental results on "overthrowing" with the shoulder and elbow. This led me to believe the lack of ankle mobility may have contributed to his initial throwing injury. Therefore I was able to initiate ankle mobility and stability drills to ensure his shoulder is more protected when he is able to return to pitching."

Performance F⊕CUS

Over the past 2 years DARI has been working with ASMI to evaluate its biomechanical pitching experience. From that hard work DARI and ASMI are happy to say that "We have done it!" DARI's markerless motion capture system has met any traditionally held standard for collecting accurate baseball pitching biomechanics!

The evolution has happened.

With advancements in capture frequency to 240Hz (high speed capture), updated biomechanical skeleton, and novel lenses to capture players form farther way, DARI is ready! ASMI will be moving away from marker–based motion capture technology that they have been using for the past 30 years for pitching evaluations.

DARI is working with ASMI to have their BioPitch software productized inside DARIs ecosystem by the end of summer 2020. Baseball teams across the country will finally have a direct access point to ASMI insights for their pitchers!

"I have been waiting for this for over 10 years..." –Dr. Glenn Fleisig

Full Video

Click the button to watch Dr. Fleisig's review on DARI Motion.

All of the ASMI insights will be accessible inside DARI's SAGE software. A revolutionary biomechanical ecosystem that allows you to see both video and data at the same time. Giving users the tools to document what was found scientifically and also deliver an action plan on how to fix those uniquely found issues.
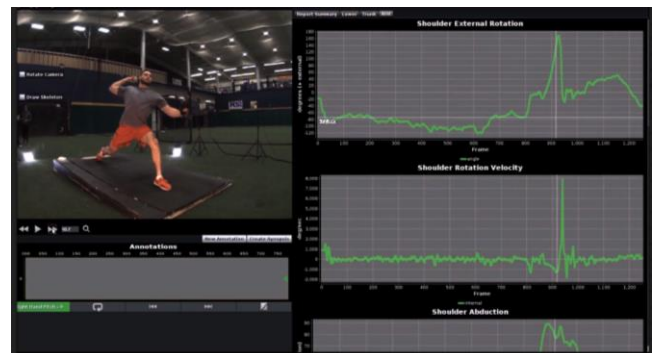
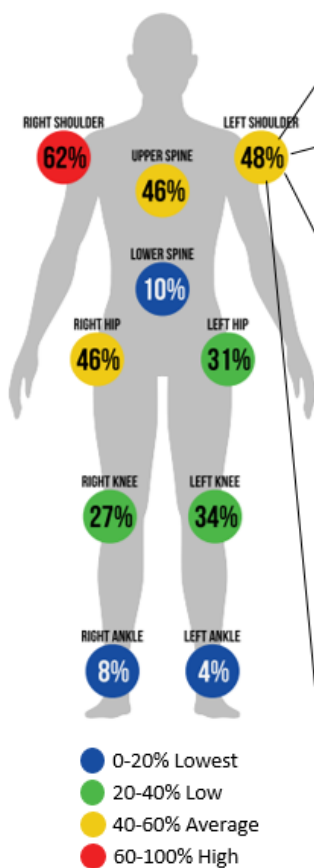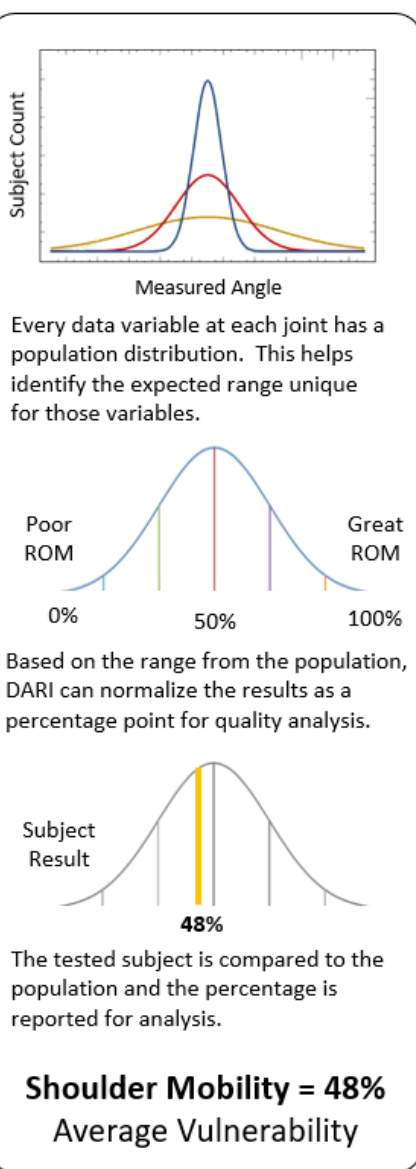# How Does Joint Vulnerability Data Reduction Work?

H🔥T TOPIC

Joint Vulnerability is a data reduction model that utilizes hundreds of data variables across a variety of movements to help tell a simple story of whether your joint motions are in normative ranges. It helps any user better understand where to look closer in more detailed reports without having a Ph.D. in biomechanics.

VISUALIZATION

RIGHT SHOULDER **62%**
LEFT SHOULDER **48%**
UPPER SPINE **46%**
LOWER SPINE **10%**
RIGHT HIP **46%**
LEFT HIP **31%**
RIGHT KNEE **27%**
LEFT KNEE **34%**
RIGHT ANKLE **8%**
LEFT ANKLE **4%**

- 🔵 0-20% Lowest
- 🟢 20-40% Low
- 🟡 40-60% Average
- 🔴 60-100% High

The joint assessment percentage lets you know how that joint performed across all movements completed when compared to the population. The lower the percentage, the better the quality and performance of that joint.

MODEL DESIGN

Subject Count / Measured Angle

Every data variable at each joint has a population distribution. This helps identify the expected range unique for those variables.

Poor ROM — Great ROM
0%   50%   100%

Based on the range from the population, DARI can normalize the results as a percentage point for quality analysis.

Subject Result
48%

The tested subject is compared to the population and the percentage is reported for analysis.

Shoulder Mobility = 48%
Average Vulnerability

APPLICATION

At each joint there is a breakdown of information into 3 categories: Mobility, Alignment, and Kinetics.

Each variable has over 10,000 subjects used to create the normative ranges.

Based on repeatability statistical models, certain variables are used to help confidently determine a subject quality of movement.

Once a variable's range has been determined, a normalized scale is applied to remove the direct measurement units (degrees) and convert it to a percentage (%).

Based on the percentage relative to the normative range DARI will determine if the measurement, does or does not meets optimal standards or does not.

If the measure is below standards, it would be classified as "more vulnerable". If the measure is above standard it would be classified as "less vulnerable".

More vulnerable joints (showing deviations away from the norm) would suggest a deeper clinical evaluation.