

Reducing Musculoskeletal Spend in the Manufacturing Industry

A guide for benefits leaders on solutions to reduce musculoskeletal spend





Dear Health & Benefits Leader,

After speaking with hundreds of employers, we decided to create a guide to help you cut through the noise to address musculoskeletal (MSK) disorders in your workforce.

On average, **1 out of 2 of your employees has an MSK disorder**, such as chronic back or joint pain. It should come as no surprise that these employees are costlier and less productive than their counterparts without chronic pain.

As MSK costs continue to rise, many employers are left to search for potential solutions. However, this process has become overly complicated, time-consuming, and frustrating.

Based on the latest research and feedback from Fortune 500 employers, we're confident that the information in this guide will help you understand and tackle high MSK spend in the manufacturing industry.

Sincerely,

A handwritten signature in black ink that reads "Daniel Perez". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Daniel Perez
Chief Executive Officer
Hinge Health

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MSK in the Manufacturing Industry

Have you considered the impact of musculoskeletal (MSK) conditions in your industry? To learn more, read on.

[MSK Injuries are Common in Manufacturing](#)

[Manufacturing is Challenging Work](#)

[The Physical Toll on Manufacturing Workers](#)

MSK Injuries are Common in Manufacturing

Workers in the manufacturing industry are especially prone to musculoskeletal (MSK) injuries from performing repetitive motions. Unlike a slip or fall, these types of injuries develop slowly over time and lead to reduced productivity, work absences, and workers' compensation claims.

Meanwhile, with plants closing and tasks increasingly becoming automated, job security is a growing concern in the industry. These worries have a negative impact on their mental health which can further exacerbate manufacturing workers' MSK pain. To combat their concerns, manufacturing workers are often self-medicating, which has a negative effect on their job performance.¹



**50% of manufacturing employees
regularly use an addictive substance**

Manufacturing Work is Challenging

Job security concerns and higher industry standards demand that manufacturing employees rise to the challenge. This inherently physical work causes higher rates of injury. The following job movements put your employees at an increased risk for musculoskeletal (MSK) disorders:²

- Prolonged time standing
- Repetitive physical tasks
- Heavy lifting
- Awkward postures or reaches
- Limited rest time between activities

In manufacturing, many of these movements are integral to job performance. So, limiting these movements can prove challenging for most employers in the industry. And while certain precautions like education and customized tools can help minimize the impact of these activities, they can only do so much.

The Physical Toll on Manufacturing Workers

Meet Paul, a 42 year old Michigan native who has been working at an automotive manufacturing plant for the past 20 years. Years of heavy lifting and awkward postures from mechanical assembly have left him with low back pain that regularly keeps him up at night. Paul takes an aspirin before every shift for his pain and drinks a couple of beers after he clocks out to help him sleep.

Repetitive motion takes a toll on your workforce and causes back and joint injuries. These injuries lead to chronic pain and ultimately to expensive back and joint surgeries, which cause employer musculoskeletal (MSK) spend to balloon.



Overexertion is the #1 injury in the manufacturing industry³



The Toll Of MSK On the Workforce

Musculoskeletal (MSK) conditions impact your employees both physically and mentally, and drive a majority of employer medical spend. To learn more, read on.

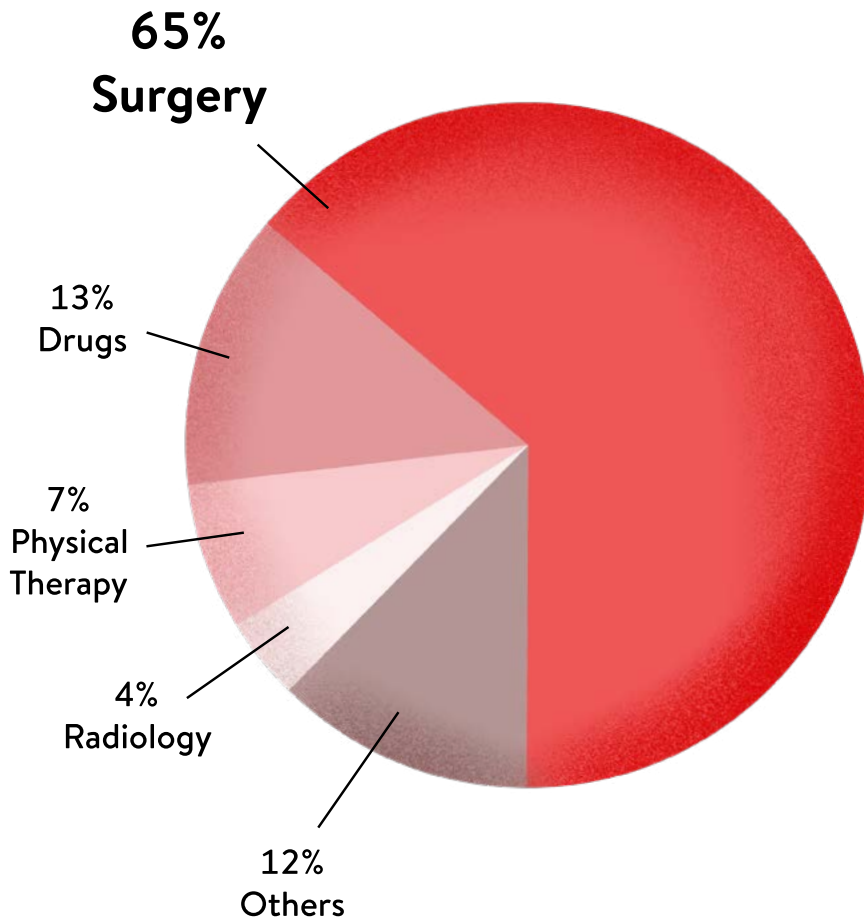
MSK Conditions are the Top Cost Driver
Most Back & Joint Surgeries are Unnecessary
Chronic MSK Pain Impacts Mental Health

MSK Conditions Are the Top Cost Driver

In a study with over 10 million plan members, Truven Health Analytics ranked musculoskeletal (MSK) conditions as the top cost driver for self-funded employers. The study found that MSK spend outpaced spend for cancer, cardiovascular disease, women's health and reproductive care, or type 2 diabetes.⁴

Employer MSK spend is so high because 4 out of 5 employees with chronic pain are not receiving expert-recommended non-surgical preventative care.^{5,6} Instead of preventative care, our medical system overuses surgery and drugs; in fact, surgery and drugs alone account for over 75% of the average self-funded employer's MSK spend. Avoiding overutilization of expensive, elective surgeries with preventative conservative care could be one of the most important things you do to impact your medical spend.

Drivers of Employer MSK Spend



**Over 75% of employer MSK spend
goes to surgery & drugs**

Most Back & Joint Surgeries are Unnecessary

Musculoskeletal (MSK) surgeries are often unnecessary and are not always effective. According to a study published by the Journal of Pain in 2016, an average of 20–40% of back surgeries fail.⁷ And in 2013, the New England Journal of Medicine published a study that showed that patients who underwent arthroscopic knee surgery had the same 2-year outcomes as people who had a fake or placebo surgery.⁸ In other words, a significant number of back surgeries fail, and even if knee surgeries are successful, they don't necessarily result in better outcomes.

Many patients think that surgery is a last resort or a quick fix for chronic pain. After suffering from knee or back pain for several years, many are willing to do whatever it takes to make the pain go away. However, surgery is not a quick fix.⁹



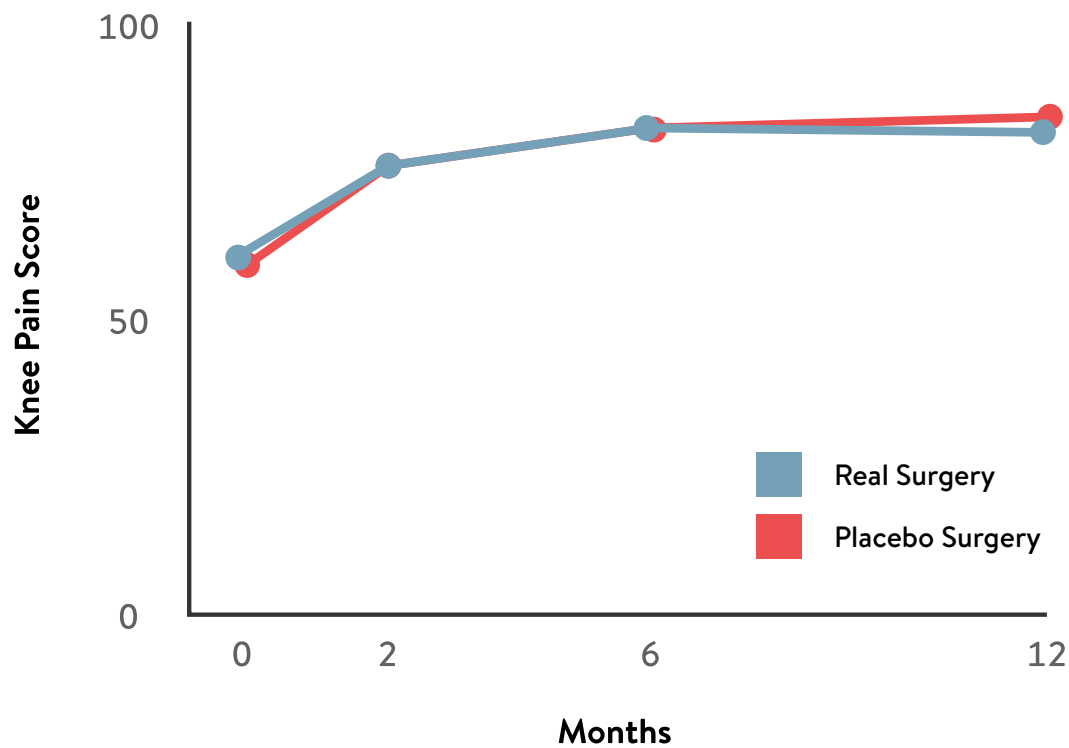
Surgery does not mean better outcomes



The NEW ENGLAND
JOURNAL of MEDICINE

No Difference in Pain Outcomes for Placebo & Real Surgeries⁸

(Sihvonen, et al., 2013)

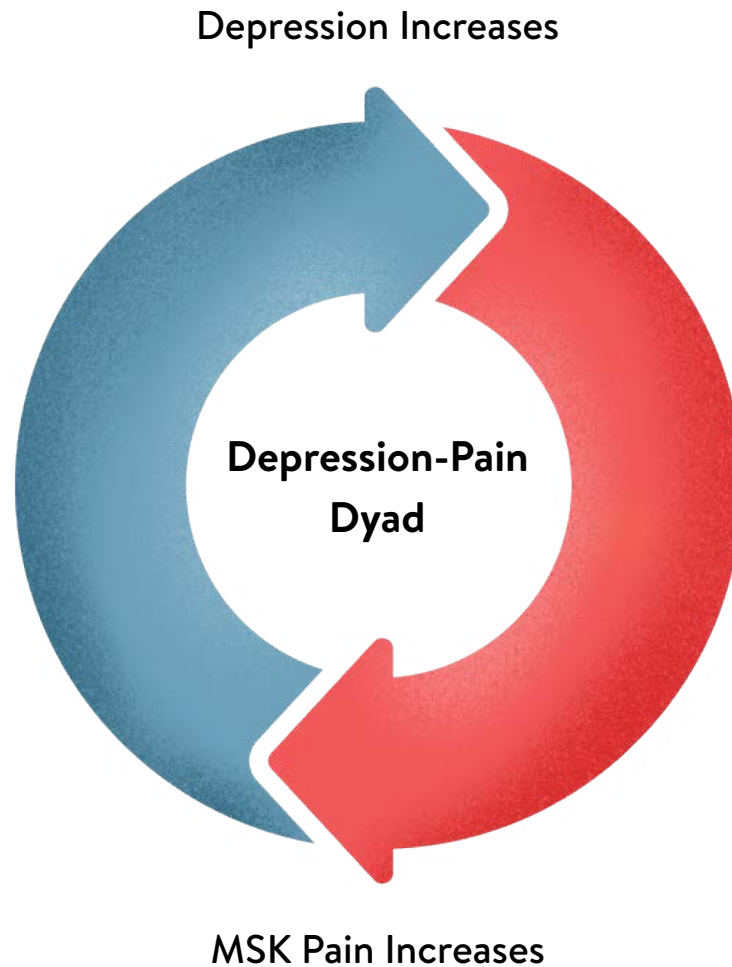


Chronic MSK Pain Impacts Mental Health

Chronic musculoskeletal (MSK) pain has an intimate relationship with depression and other mental health concerns. Depression has been shown to increase the severity and intensity of pain, and in turn, chronic MSK pain increases the risk for depression. This feedback loop, known as the depression-pain dyad, is caused by the shared neural pathways between chronic pain and depression.¹⁰ This combination of chronic pain and depression ultimately increases healthcare utilization, disability claims, absenteeism, and presenteeism in your workforce.

Without intervention, employees can get stuck in alternating cycles of increasing MSK pain and depression. Feeling hopeless, stuck, and alone, employees can turn to drastic measures to find relief.

Pain and Depression Create a Feedback Loop



Solutions for MSK in the Manufacturing Industry

Help your employees reduce musculoskeletal (MSK) related pain and surgery with evidence-based care. To learn more, read on.

Tackle Chronic MSK Pain with Evidence-Based Care

Digitally Deliver Evidence-Based MSK Care

Outcomes: 2 out of 3 Surgeries Avoided

Reduce Chronic MSK Pain with Evidence-Based Care

So, what do experts recommend for your members with chronic musculoskeletal (MSK) pain? Expert guidelines from organizations, including the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), and the United States Centers for Disease Control and Prevention (CDC), consistently recommend 3 pillars of non-surgical, preventative MSK care: exercise therapy, behavioral health, and education.^{11,12,13}

Specifically, the CDC recommends going beyond exercise therapy for better long-term outcomes.¹³ A comprehensive solution should include education and behavioral health support to achieve long-term improvements and to exit the cycle of pain and depression.



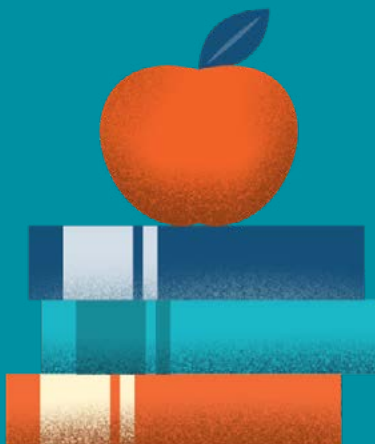
**The CDC recommends
going beyond exercise therapy for
better long-term outcomes**



Exercise Therapy



Behavioral Health



Education

Digitally Deliver Evidence-Based MSK Care

Many members report that they do not have the time or know-how to pursue evidence-based musculoskeletal (MSK) care on their own. Empower your members to overcome those barriers by implementing a comprehensive digital care program, like Hinge Health.

At Hinge Health, we've taken established, proven non-surgical care guidelines, and turned them into a digital, coach-led program to help your workforce with back and joint pain, and avoid unneeded surgeries. The program is delivered remotely using mobile and wearable technology, making accessible and effective care convenient for your members.

The Hinge Health program starts with a 12-week intensive phase, followed by an ongoing program that builds on learned health behaviors. Hinge Health makes it easy to engage members with turnkey implementation, solution integration, and claims billing with most carriers. Hinge Health puts 100% of fees at risk with a 1:1 ROI guarantee.



Exercise Therapy

Free tablet and wearable sensors to guide with real-time feedback on movement



Behavioral Health

Mental health screening, behavioral health intervention, and unlimited 1:1 coaching



Education

Personalized and interactive education curriculum

Outcomes:

2 out of 3

Surgeries Avoided

Hinge Health is the only digital musculoskeletal solution with proven medical claims reduction and 4 peer-reviewed publications.

Outcomes from a 2020 published cohort study with 10,265 Hinge Health participants include:

- Pain reduction more than 4x better than opioids
- 2 out of 3 surgeries avoided in Year-1
- 58% reduction in depression and anxiety scores



**Hinge Health participants
average more than 4x better pain
reduction than opioids**



MSK Solutions In Practice: A Case Study

Read on to learn how a Fortune 500 CPG Manufacturer reduced musculoskeletal (MSK) spend and lost work days by 65% by digitally delivering evidence-based MSK care.

[Fortune 500 CPG Manufacturer: Tackling MSK Spend & Depression](#)
[Fortune 500 CPG Manufacturer: Clinical Outcomes](#)

Tackling MSK Spend & Depression

A leading Fortune 500 CPG Manufacturer has a diverse manufacturing workforce spread across the United States. They partnered with Hinge Health to address their top medical cost driver – musculoskeletal (MSK) disorders.

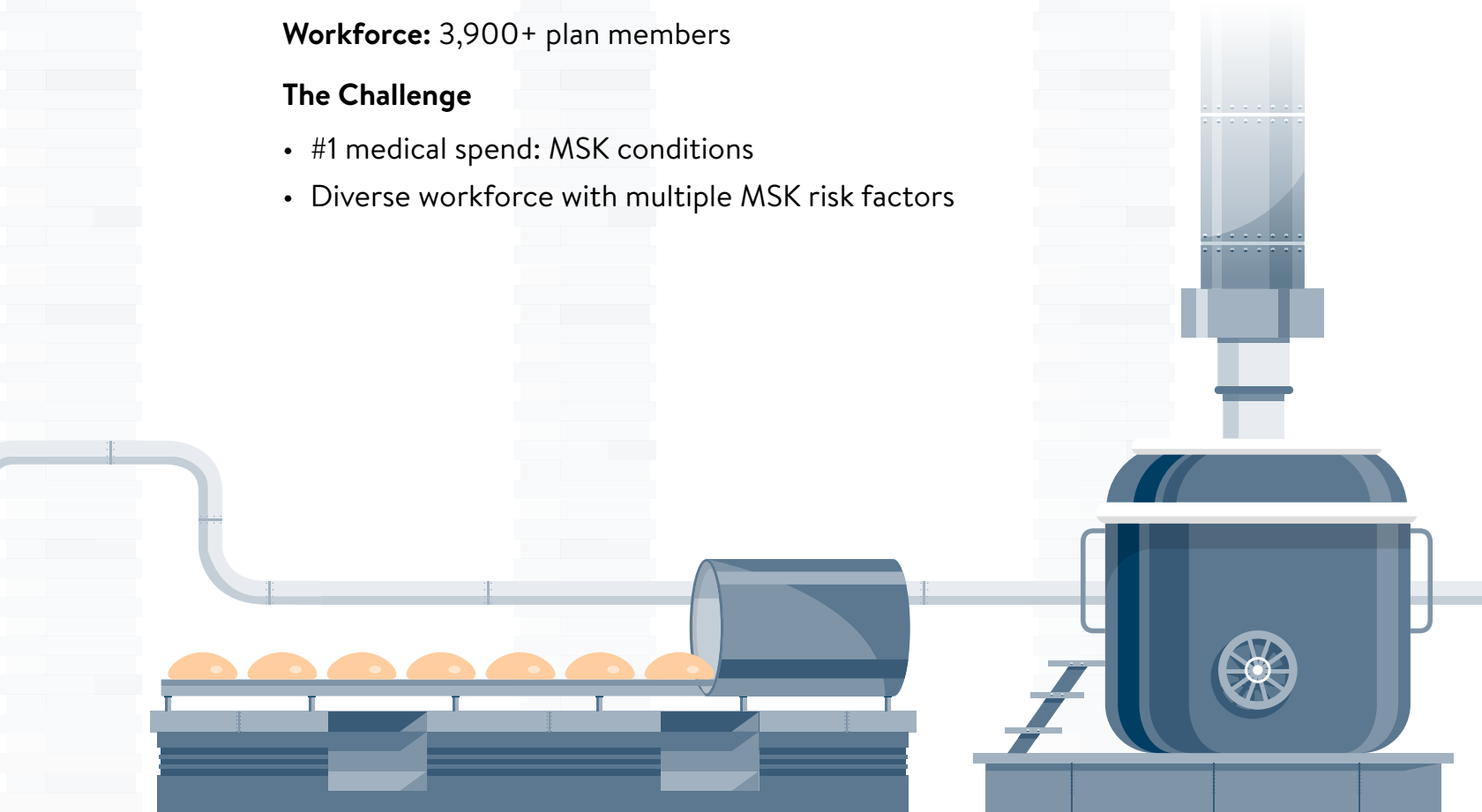
Like other manufacturing employers, their MSK spend was mostly driven by surgeries related to chronic MSK back and joint conditions. The company implemented Hinge Health to deliver the 3 pillars of best practice care: exercise therapy, behavioral health, and education. Given the comorbidity of chronic MSK pain and depression, the behavioral health component was critical to treating both conditions. To ensure a successful launch, Hinge Health utilized a variety of marketing campaigns to reach the company's workforce, such as direct mail, email, and social media.

Industry: CPG / Manufacturing

Workforce: 3,900+ plan members

The Challenge

- #1 medical spend: MSK conditions
- Diverse workforce with multiple MSK risk factors



Clinical Outcomes

The Fortune 500 CPG company saw life-changing outcomes among participants.

50% of surgeries avoided

93% weekly engagement*

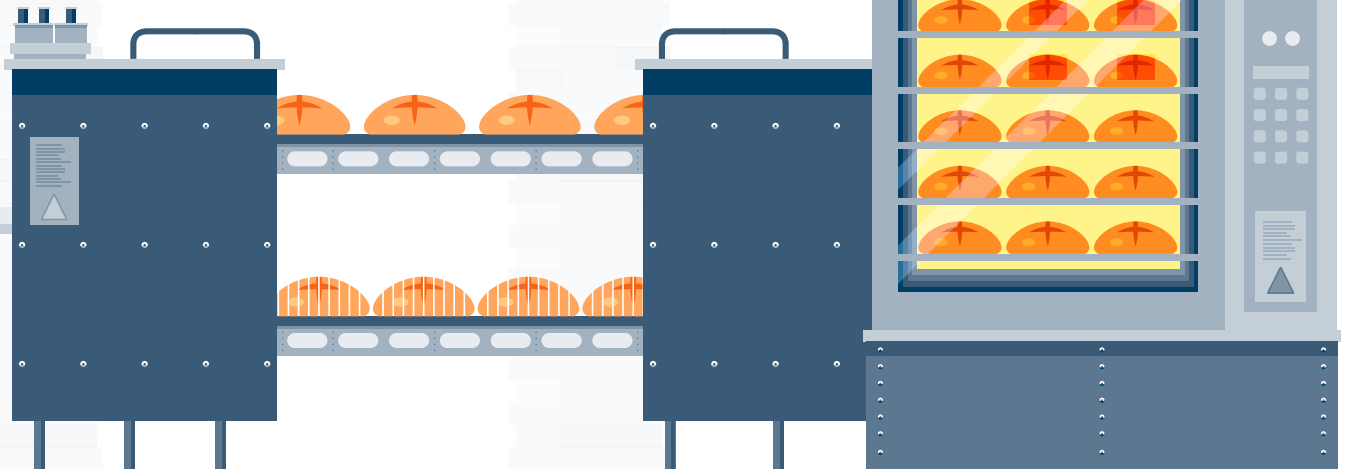
73% fewer people with clinical depression

65% fewer work days lost

*for participants that completed the program

“Hinge Health went **above and beyond** to provide extra onboarding support.”

Director of Benefits,
Fortune 500 CPG Manufacturer



Select a
Solution
With
Confidence

Equipped with knowledge about chronic musculoskeletal (MSK) pain and its impact on your workforce — the next challenge is to find a solution you can trust. To help in this effort, we created a quick guide to selecting an MSK solution with confidence.

Guide to Selecting an MSK Solution

Guide to Selecting An MSK Solution



Based on feedback and research with hundreds of self-funded employers, health and benefits leaders recommend considering four key areas when evaluating a musculoskeletal (MSK) solution:

1. Proven outcomes
2. Cost savings
3. Track record
4. Ecosystem integrations

Considerations		Questions
Proven Outcomes	Consistent results and proven outcomes, published in multiple studies.	<p>What engagement and clinical outcomes have been demonstrated in randomized control studies?</p> <p>How do you define engagement and program completion?</p>
Cost Saving	Removes risk by offering a 1:1 ROI guarantee.	Are 100% of your fees at risk with an ROI guarantee?
Track Record	Successful track record with multiple implementations across a variety of workforces.	<p>Can you share 5 employer customer references?</p> <p>How many enterprise implementations have you done in my industry?</p>
Ecosystem Integrations	Integrates into benefits ecosystem easily and seamlessly, while offering flexible billing through claims and/or invoices.	Can you contract and bill through my health plan?

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Hinge Health is pioneering the world's most patient-centered digital hospital, starting with musculoskeletal health. Hinge Health's back and joint pain care pathways combine wearable sensor-guided exercise therapy with behavioral change through 1-on-1 health coaching and education. Hinge Health is the #1 musculoskeletal solution for employers and health plans. Available to millions of members, Hinge Health empowers people to reduce chronic pain, opioids and surgeries.

Let's Connect

Contact us to learn more strategies to reduce your medical spend or to see a Hinge Health demo.

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See how Hinge Health works:
hingehealth.com/manufacturing