

1. Musculoskeletal injuries (MSK-I) are a serious and commonly occurring problem in sports medicine. 2.5 million youth soccer players + 28 million youth basketball players with [150K ACL injuries](#) each year 50 million runners in the US with 40% injury rate each year [Citation](#)
2. Sports Medicine has four main objectives: Injury Prevention, Exercise, Nutrition, Injury recovery [Citation](#).

## Market Sizing and Segmentation:

Orthopedic surgeons(specialist doctors), athletic trainers, physical therapists, and sports nutritionists are the 4 main customer segments for MSK care in Sports. [Sports Medicine Careers | AOSS](#)

500k professionals in the following segments, nearly **71k** dedicated to sports.

| Customer segment           | Count   | % dedicated to sports   | Preventative care/ Injury care | Where are they employed?  |
|----------------------------|---|---|--------------------------------|---|
| Orthopedic surgeons        | 30,141<br>+ MSK (O...                                       | 18.2%<br><a href="#">AAOS page 32</a>                             | 20%/80%                        | Office of physicians(41%), Educational institutes(1%)<br><a href="#">Citation</a>   |
| Athletic trainers          | 56,906<br><a href="#">NATA</a>                              | 100%  | 50%/50%                        | Educational institutes (40%), Hospitals (18%), Offices of therapists(15%)<br><a href="#">Citation</a>                                 |
| Physical therapists        | 275,975<br>+ MSK (O...                                      | 1.16%<br><a href="#">APTA</a> (3,213 certifications)              | 30%/70%                        | Offices of therapists (35%), Hospitals(28%), Home health(10%) <a href="#">Citation</a>  |
| Sports Medicine Physicians | 938k<br><a href="#">Citation</a>                            | 6%<br><a href="#">Citation</a>                                    | 30%/70%                        | Hospitals (26%), Self-employed (59%)<br><a href="#">Citation</a>  |
| Physiatrists               | 15,300<br><a href="#">Citation</a>                          | 0.92%<br><a href="#">Citation</a> (141 sports medicine certified) | 90% injury care                | Outpatient Care Centres (27%), Office of Physicians (24%), Psychiatric and substance abuse hospitals (12.2%) <a href="#">Citation</a> |
| Nutritionists              | 115,000<br><a href="#">Academy of Dietetic Registration</a> | 1.56%<br><a href="#">SportsRD</a> (1831)                          | 80%/20%                        | Hospitals(27%), Government(11%), Outpatient care centers(9%) <a href="#">Citation</a>   |

Based on the end user, the United States sports medicine market can be bifurcated into hospitals, orthopedic specialty clinics, fitness and training centers, Ambulatory Surgical Centers (ASCs), and others. Currently, hospitals exhibit a clear dominance in the market. [IMARC](#) On a regional level, the market has been classified into Northeast, Midwest, South, and West.

Breakdown of the Sports Medicine industry in the US by End users: [IMARC](#)

- Hospitals(estimated 31%)
- Orthopedic Specialty Clinics
- Fitness and Training Centers
- Ambulatory Surgery Centers (ASCs)

Prominent Hospitals of the segment:

| Healthcare Organization          | MSK-sports cases (annual) | Market Share (ChatGPT 4) |
|----------------------------------|---------------------------|--------------------------|
| Hospital for Special Surgery HSS | 35,000                    | 8%                       |
| Mayo Clinic Sports Medicine      | 30,000                    | 7%                       |
| Cleveland Clinic                 | 25,000                    | 6%                       |
| Steadman Clinic                  | 20,000                    | 6%                       |
| Kaiser Permanente Sports Med.    | 15,000                    | 5%                       |
| Cedars-Sinai Medical Center      | 7,000                     | 5%                       |
| Johns Hopkins Hospital           | 6,000                     | 5%                       |
| Community Hospitals              | variable                  | 20-30%                   |
| Private Practices                | variable                  | 20-25%                   |

Market Forces and Regulations:

| Factor    | Analysis  | Sources to be studied                             |
|-----------|---|---|
| Political | <b>Healthcare policies:</b> Government policies on healthcare reimbursement and insurance promoting sports and health. Medicare and private insurance coverage policies influence market demand                       | <a href="#">Grad View</a>                         |
|           | <b>Regulatory Environment:</b> The FDA regulates medical devices and treatments used in sports medicine, including orthopedic devices. Compliance with FDA regulations is crucial for market entry and sustainability | <a href="#">FDA</a>                               |
| Economic  | <b>Market Size:</b> The United States sports medicine market size reached US\$ 2.64 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 3.66   | <a href="#">IMARC</a> , <a href="#">Grad View</a> |

|               |  |   |
|---------------|--|---|
|               | <p>Billion by 2032, exhibiting a growth rate (CAGR) of 3.6% during 2024-2032. In addition, a gradual shift from proactive care to preventive care concerning sports injuries is further projected to drive the market.</p> <p><b>Funding and Investment:</b> High levels of investment in sports medicine technology and infrastructure enhance the market potential for innovative solutions like Pathways. Vida Health: \$28.5 M</p>                     | <a href="#">Citation</a>  |
| Social        | <p><b>Aging Population:</b> Rising demand for sports medicine due to an active aging population and growing sports participation</p>   | <a href="#">AAOS</a> , <a href="#">Grad View</a>                          |
|               | <p><b>Health and Wellness Trends:</b> Growing awareness of fitness and preventive healthcare contributes to the demand for sports medicine products.</p> <p><b>Professional Sports:</b> High incidence of sports-related injuries among professional athletes drives the need for advanced sports medicine</p>   |   |
| Technological | <p><b>Innovation in Treatment:</b> Advances in technology, such as minimally invasive surgical techniques and wearable devices for monitoring recovery, are transforming the sports medicine market</p>  | <a href="#">MedBridge Pathways Engagement</a>                             |
|               | <p><b>Telehealth and Remote Monitoring:</b> Pathways offers remote patient engagement and telehealth solutions. Such solutions are gaining traction, especially post-COVID-19</p>  |   |
| Legal         | <p><b>Intellectual Property:</b> Patents and trademarks protect new technologies and products in the sports medicine market.</p> <p><b>Liability and Malpractice:</b> Healthcare professionals and institutions must navigate liability issues, which can influence the adoption of new products and technologies.</p> <p><b>Compliance:</b> Adherence to HIPAA regulations is essential for telehealth solutions to protect patient data and privacy.</p> | <a href="#">FDA</a> , <a href="#">HIPAA</a>                               |
| Environmental | <p><b>Sustainable Practices:</b> Increasing focus on sustainability in healthcare, including the use of eco-friendly materials and waste reduction.</p> <p><b>Regulatory Requirements:</b> Compliance with environmental regulations regarding medical waste management and sustainable manufacturing practices.</p>   | <a href="#">MedBridge Pathways Engagement</a> , <a href="#">Grad View</a> |

## Market Incumbents and Competitors:

| Competitor                                   | Description  | Sales model                    | Price  | Content of product   | Differentiating factor  | Brand Strength  | Funding  | Business model                   |  |
|--|--|--------------------------------|--|--|---|---|--|----------------------------------|--|
| Athletico<br><a href="#">Athletico</a>       | A leading provider of orthopedic rehabilitation, physical therapy, and athletic training services                          | service-based                  | Varies by service; generally \$150-\$250 per session                                     | Comprehensive rehabilitation and training services.                    | Strong network of clinics and athletic training programs        | Well-established in the physical therapy and sports medicine sector   |  | To healthcare providers          | Large network of clinics and established reputation in sports medicine make them a direct competitor |
| Physitrack<br><a href="#">Physitrack</a>     | Digital health platform offering telehealth, patient engagement, and home exercise solutions                               | Subscription-based             | \$20-\$30 per user/month   | Telehealth, home exercise programs, patient engagement tools           | Integration with various health systems and insurance providers | Strong digital presence and partnerships with healthcare providers    | Raised over \$18 million in funding rounds                           | To healthcare providers          | Strong presence in digital health and patient engagement solutions relevant to Pathways' offerings   |
| DJO Global<br><a href="#">Enovis</a>         | Provides a range of orthopedic devices, surgical solutions, and recovery science products                                  | Product-based                  | Varies by product; orthopedic devices can range from \$100 to \$1,000+                   | Orthopedic devices, recovery products, and rehabilitation tools        | Comprehensive product range covering all stages of injury care  | Leading manufacturer of orthopedic devices and recovery solutions     | Acquired by Colfax Corporation in a \$3.15 Billion deal              | To healthcare providers          | Major player in orthopedic devices and recovery solutions, overlapping with Pathways' target market  |
| WebPT<br><a href="#">WebPT</a>               | EMR software for outpatient physical therapy clinics, offering documentation, billing, and practice management solutions   | Subscription-based             | \$99-\$149 per user/month  | EMR, billing, practice management, patient engagement tools            | Focused on improving clinic efficiency and patient outcomes     | Largest EMR provider in the physical therapy market                   | Raised \$1.8 million in funding; acquired by Warburg Pincus          | To healthcare providers          | Leading provider of EMR solutions for physical therapy clinics, relevant to Pathways' market         |
| Fusionetics<br><a href="#">Fusionetics</a>   | Provides performance healthcare solutions focusing on movement efficiency, injury prevention, and recovery                 | Subscription and service-based | Custom pricing   | Movement assessments, performance training, injury prevention programs | Evidence-based approach to performance healthcare               | Strong presence in professional sports and athletic training programs | Raised \$9 million in funding from investors                         | Direct to athletes and providers | Significant focus on injury prevention and recovery, aligning with Pathways' goals                   |
| Hinge Health<br><a href="#">Hinge Health</a> | Digital musculoskeletal clinic providing personalized care through wearable sensors, exercise therapy, and health coaching | Subscription-based             | Varies (typically employer-based plans, estimated \$2,000-\$5,000 per employee annually) | Wearable sensors, personalized exercise therapy, health coaching       | Use of wearable technology for personalized care                | Rapidly growing presence in digital MSK care with large client base   | Raised \$300 million in Series D funding, valued at over \$3 Billion | To healthcare providers          | Innovative use of wearable technology for MSK care, similar to Pathways' digital approach            |
| Everspring Health                            | Offers integrative   | Service and membership-        | Custom pricing   | Integrative health services,   | Holistic approach   | Emerging player with a  |  | Direct to athletes and           | Focus on integrative   |

|                                   |  |       |  |                                    |                        |                             |  |           |   |
|-----------------------------------|--|-------|--|------------------------------------|------------------------|-----------------------------|--|-----------|---|
| <a href="#">Everspring Health</a> | health solutions, including sports medicine, focusing on long-term health and wellness | based | models; memberships typically range from \$150-\$300 per month | wellness programs, sports medicine | to health and wellness | focus on integrative health |  | providers | health and wellness, providing a holistic approach to sports medicine |
|-----------------------------------|--|-------|--|------------------------------------|------------------------|-----------------------------|--|-----------|---|

**Key Differentiating factor:** Pathways is positioned as an extension of sports medicine professionals and offers them assistance as opposed to being an alternative/competitor.

| Feature           | Pathways   | Competitors   | Differentiating factor (existing and potential)  |
|-------------------|--|---|--|
| Pricing           | Competitive and transparent subscription-based models  | Similar models used by Physitrack, WebPT  | Moderate: Competitive but comparable   |
| Personalization   | Requires personalized content and athlete care resources   | Hinge Health personalizes exercise therapy, level of personalization in Sports medicine seems low among competitors | Personalize offerings as per specific needs to win this feature  |
| Business Model    | Require a dedicated approach   | Most players sell to service provider, few sell directly to athletes  | Discussed in the table below   |
| Holistic Approach | Needs holistic approach with prevention and recovery focus, including nutrition specific to athletes | Mostly focus on either of the two, prevention and performance, or recovery  | Holistic approach can make Pathways an end to end digital extension of service providers; can be offered as a standalone solution directly to athletes (specifically in individual or recreational sports, aging population) |

**Should we take the direct to athletes approach?**

| Advantages of 'direct to athletes' approach   | Disadvantages  | Factors to consider   |
|---|--|---|
| <b>Direct access:</b> tap into growing demand among athletes for personalized health analytics          | <b>Expertise Required:</b> Athletes may need guidance to interpret complex health data                             | <b>Product Development:</b> User-friendly, clear instructions and analytics. Focus on athlete user personas         |
| <b>User Engagement:</b> Direct relationship with end-users allows for direct feedback and customization | <b>Regulatory Challenges:</b> Ensuring compliance with health data privacy and athlete-specific health regulations | <b>Regulatory Compliance:</b> Confirm adherence to health data privacy laws and athlete-specific health regulations |
| <b>Market Accessibility:</b> Potential to reach a broad consumer base without intermediaries            | <b>Market Penetration:</b> Unable to leverage pre-existing professional relationships with healthcare providers    | <b>Marketing Strategy</b> specific to athlete engagement, market position   |
| Shorter sales cycles, no dependance on intermediary recommendations and adoption                        |  | <b>Continuous Market trends and demand analysis</b>   |

A balanced approach considering product readiness, regulatory compliance, market dynamics, and competitive analysis is essential. Selling to healthcare professionals provides credibility, easier regulatory compliance, and access to institutional markets, albeit with longer sales cycles and indirect user feedback channels. The Direct-to-athlete approach can be explored 1. After legacy products are well-established as dedicated sports solutions or 2. Pathways is well-established in all 4 market segments.

## Key Market Insights:

1. **Market Dominance:** Major healthcare systems and hospitals play a significant role in the sports medicine market. For example, hospitals held the largest revenue share of 64.5% in the orthopedic devices market in 2023 ([Grand View Research](#))
2. The comprehensive reimbursement policies, supports the dominance of large healthcare systems in the market ([Grand View Braces](#))
3. An estimated 2.8 million injuries resulting from individual sports are reported annually in EDs in the United States, of which 64% are musculoskeletal [Citation](#)
4. Growing market for sports medicine, with a projected value of USD 10.82 billion by 2033, indicating a lucrative opportunity for products in this sector [Sports Medicine Market](#) (Global data)

## General Pain Points:

1. Professional athletes and associated stakeholders (coaches, teams, fans) have very high expectations for rapid and effective recovery, which adds pressure on healthcare professionals to

deliver optimal outcomes consistently. [Citation](#) indicates gap in engagement and insights of athletes

2. Managing Chronic Injuries- Need for a comprehensive approach that includes physical therapy, and pain management [Citation](#)
3. Deciding between non-operative and operative treatments requires careful consideration of various factors, including the athlete's career stage and the team's current competitive status. [Citation](#) data driven health reviews will be effective.
4. Accurately estimating the timeline for an athlete's return to play is crucial but challenging, as it depends on individual healing rates and specific injury characteristics. [Citation](#) streamlining the health programs and tracking progress digitally will make this easier.
5. Sports Injuries and Cash-Based Services: High prevalence of sports injuries drives health systems and private practices to seek opportunities in cash-based services for injury prevention and performance therapy. Growing demand for services that are not covered by insurance, focusing on prevention and performance enhancement.

#### Core JTBD:

1. **Optimize Decision-Making and Recovery Timelines:** Provide tools and data to help healthcare professionals make informed decisions between non-operative and operative treatments, and accurately estimate athletes' return-to-play timelines.
2. **Improve Patient Experience and Engagement:** Offer convenient, tech-enabled care solutions that enhance patient satisfaction and loyalty while maintaining high standards of clinical care.
3. **Enhance Access to MSK Care:** Improve access to timely MSK care through digital solutions, addressing the significant gap in referrals and reducing long wait times for physical therapy.
4. **Manage and Reduce MSK Care Costs:** Streamline MSK care to minimize unnecessary imaging and surgeries, promoting cost-effective therapy-first treatments and managing chronic injuries with a comprehensive approach.

#### Early Narrative:

In the sports medicine segment, healthcare professionals face immense pressure to deliver rapid, effective recovery solutions for athletes. They need a comprehensive approach to managing acute and chronic injuries, balancing non-operative and operative treatments. Accurate return-to-play timelines are crucial yet challenging, requiring advanced tools and data-driven insights. Pathways provides a provider-built, digital MSK care platform that enhances access, reduces costs, and optimizes outcomes, ensuring athletes recover swiftly and efficiently.

#### Market Penetration Hypothesis:

##### 1: Team-Based Sports Injury Prevention Programs

- Hypothesis: By enabling health systems and private practices to offer team-based sports injury prevention programs, Pathways can capture a significant share of the youth and amateur sports markets. Leveraging its AI-driven engagement features, Pathways can efficiently manage and track large groups of athletes, reducing injury rates and improving performance outcomes (e.g., soccer ACL injury prevention).
- Market Penetration Potential: High, especially in organized youth sports and community athletic

programs.

Orthopedic surgeon groups, physical therapists, and athletic trainers working within large hospital rehab departments, orthopedic departments, or private practices involved in youth and community sports programs.

## 2: Cash-Based Performance Therapy Programs

- Hypothesis: Offering performance therapy and sports injury prevention programs as cash-based services to individuals or groups can attract recreational and semi-professional athletes seeking specialized care. Pathways' ability to provide personalized analysis (e.g., running analysis, golf analysis) will cater to athletes looking for tailored performance enhancement and injury prevention.
- Market Penetration Potential: Moderate to high, particularly in affluent areas with active sports communities.

Private practices and clinics run by orthopedic surgeons, physical therapists, and sports nutritionists who offer cash-based services targeting affluent, health-conscious communities

## 3: Post-Discharge Wellness Services

- Hypothesis: Post-discharge from physical therapy, Pathways can retain patients by offering extended cash-based wellness services such as "performance therapy" or "return to sport" programs. These services can bridge the gap between rehabilitation and full athletic performance, capitalizing on the existing patient base and extending their engagement with the platform (e.g., following the HSS model).
- Market Penetration Potential: Moderate, with strong potential for growth in sports-focused orthopedic and physical therapy clinics.

Orthopedic surgeon groups and physical therapists in both hospital settings and private practices

## Point of Market Entry for Pathways:

### Market Opportunity:

- Sports medicine professionals increasingly seek convenient, high-quality continuing education
- Opportunity to acquire or partner with established platforms to expedite market entry

### Strategic Approach:

- Forge partnerships with sports medicine associations and key opinion leaders (leverage existing connections)
- Explore acquisition of reputable platforms to leverage existing trust and user base



## How Will We Win:

Our strategy must include forging alliances with key sports medicine associations and acquiring strategic partnerships to establish credibility and expand market reach rapidly. We need to leverage motion capture and personalized therapy programs to enable sports medicine professionals to deliver superior care, drive patient engagement, and capture significant market share in the evolving digital healthcare landscape.

## Risks:

1. **Adoption of New Performance-Oriented Motion Capture Testing Protocols:** Risk: Competitors may introduce advanced Motion Capture testing protocols for performance assessment. Pathways could lose market share if unable to match competitors' capabilities in providing detailed athlete performance insights.
2. **Development of New Sport-Specific Exercise and PE Content:** Introduction of specialized exercise and PE content by competitors tailored to different sports. Pathways may struggle to maintain user engagement without offering comparable sport-specific content, risking reduced adoption among sports medicine professionals.
3. **Demand for Higher Exercise Personalization:** Increasing expectations for personalized exercise plans compared to existing market offerings. Pathways may face resistance from users if unable to deliver highly personalized exercise regimens aligned with individual athlete needs and performance metrics.

**Industry Influencers that can be contacted:** (for understanding industry temperament, scope for Pathways, and pain points)

1. Anne Harmon Grout  
PT, MSPT (ACL Injury Prevention and Performance Enhancement Program at MedBridge)
2. Brian Krabak  
Physiatrist at UW, advisor for Medbridge, and board certified sports medicine physician

| Name                    | Designation   | Reason of contact/ Expected Inputs   | Contact Info   |
|-------------------------|---|--|--|
| Dr. James Andrews       | Orthopedic Surgeon, co-founder of Andrews Sports medicine and Orthopedic center   | Experience in sports injuries and rehab will help us understand industry pain points and potential acceptance of digital care platforms like Pathways  | <a href="https://www.linkedin.com/in/james-andrews-15072080">linkedin.com/in/james-andrews-15072080</a>  |
| Dr. Christopher Ahmad   | Head Team Physician for the New York Yankees and Chief of Sports Medicine and professor of Orthopedic Surgery Columbia University     | Significant research in injury prevention and treatment strategies, academic, and clinical background, and experience with athletes can help with understanding integration of digital health solutions in Sports medicine   | <a href="https://www.linkedin.com/in/drchristopherahmad">linkedin.com/in/drchristopherahmad</a> ; <b>Website:</b> <a href="http://drahmadssportsmedicine.com">drahmadssportsmedicine.com</a> |
| Dr. Kevin Wilk          | Associate Clinical Director for Champion Sports Medicine and Vice President of Clinical Education at Physiotherapy Associates         | Leading physical therapist specializing in sports rehabilitation and injury prevention, his expertise in rehabilitation and clinical education can provide valuable insights into the practical implementation of Pathways and its potential impact on rehabilitation outcomes | <a href="https://www.kevinwilk.com/">https://www.kevinwilk.com/</a>  |
| Dr. Michael G. Ciccotti | Director of Sports Medicine at Rothman Orthopaedic Institute and Head Team Physician for the Philadelphia Phillies                    | Dual role as a clinician and researcher can help us with insights in clinical needs and pain points  | <a href="https://rothmanortho.com/physicians/michael-g-ciccotti-md">https://rothmanortho.com/physicians/michael-g-ciccotti-md</a>  |
| Dr. Brian Cole          | Head Team Physician for the Chicago Bulls and Chicago White Sox and Professor of Orthopedic Surgery at Rush University Medical Center | Orthopedic surgeon with a focus on sports medicine and regenerative medicine, he is involved in both clinical practice and research  | <a href="https://www.linkedin.com/in/brian-cole-92589b69">linkedin.com/in/brian-cole-92589b69</a>  |
| Dr. John DiFiori        | Director of Sports Medicine for the NBA and Professor of Clinical Medicine at UCLA  | Oversees medical care for NBA athletes and is involved in developing health and performance initiatives, giving him a broad view of the health challenges faced by elite athletes and the effectiveness of various health solutions  | <a href="https://www.hss.edu/physicians_difiori-john.asp">https://www.hss.edu/physicians_difiori-john.asp</a>  |