

W H I T E P A P E R

4 DIAGNOSTIC TOOLS THAT CAN GET YOU PAID LIKE AN ORTHOPEDIST



The median annual wage for a chiropractor in the United States is **\$70,720 per year** according to the Bureau of Labor Statistics (BLS). This equates to roughly \$34 per hour. What does an orthopedist earn annually? More than **\$208,000 per year.**

This is around \$100 per hour, if not more.

While there is value in both types of healthcare services, this discrepancy highlights the uphill battle that chiropractic professionals face when getting others to understand the benefits of their approach—benefits that, in many cases, make it preferential to a surgical procedure. Chiropractic is non-invasive, offers a less painful recovery process, and works to get the body to naturally heal itself. Until patients truly understand this, the result is lower perceived value compared to non-surgical orthopedic procedures.

This perceived gap in value is a big reason why chiropractic fees are significantly less than services that are comparable to orthopedics. For example: if patients valued adjustments the same as cortisone injections, their fees would be similar. Another example is comparing a chiropractor's exam to an orthopedist's. Both services are performed by specialists, both take just as much time to perform, and both require skill to administer. One could even argue that chiropractic exams and adjustments are more effective in diagnosing and treating the cause of a patient's ailments. Unfortunately, patients don't see it this way and are therefore willing to pay orthopedists more for their services.

So, how do chiropractors bridge this value gap between chiropractic and orthopedic services? One answer is to implement evidence-based diagnostic tools such as:

1. **3D Posture Measuring Device**
2. **3D Range of Motion Systems**
3. **Functional Outcomes Assessment Tests**
4. **Orthotic Assessment Tools**

Such tools help patients realize the full benefits of chiropractic care and thereby allow you to get paid more like an orthopedist. This report provides detailed information on how and why these diagnostic tools increase perceived value in chiropractic care.



3D Posture Measuring Device

Building trust is a key component to building value. As a chiropractor, one way to build trust is to show patients how symptoms are related to structural health. A 3D posture measuring device is one of the best ways to assess structural health. It supports accurate patient assessments, promotes better patient education, and documents objective results.

Supporting Accurate Assessments

The first and most important step in patient management is to perform a proper patient assessment. This process is essential to creating a successful treatment regimen. One common exam chiropractors use to form a complete and accurate assessment is to look at the patient's structural health. Although there are many ways to do this, a 3D posture measuring device provides a complete picture of a patient's structural alignment.

Measuring posture instead of "eye-balling it" reduces risk factors associated with inaccurate results. For some patients, improper posture exams may lead to chronic conditions like upper cross syndrome, lower cross syndrome, osteoarthritis, or spinal radiculopathies. For others, it might lead to relapses, like reoccurring sprains, strains, or other musculoskeletal issues like sciatica.

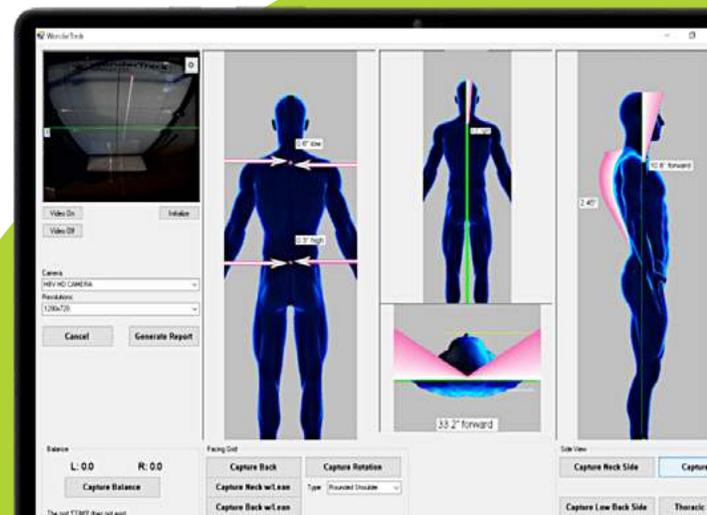
A proper posture assessment can also keep patients from enduring painful and potentially unnecessary surgery. One [survey](#) conducted by the RAND Corporation found that "significant proportions of procedures are performed for inappropriate reasons"—with some surgical procedures being unnecessary up to 32% of the time.

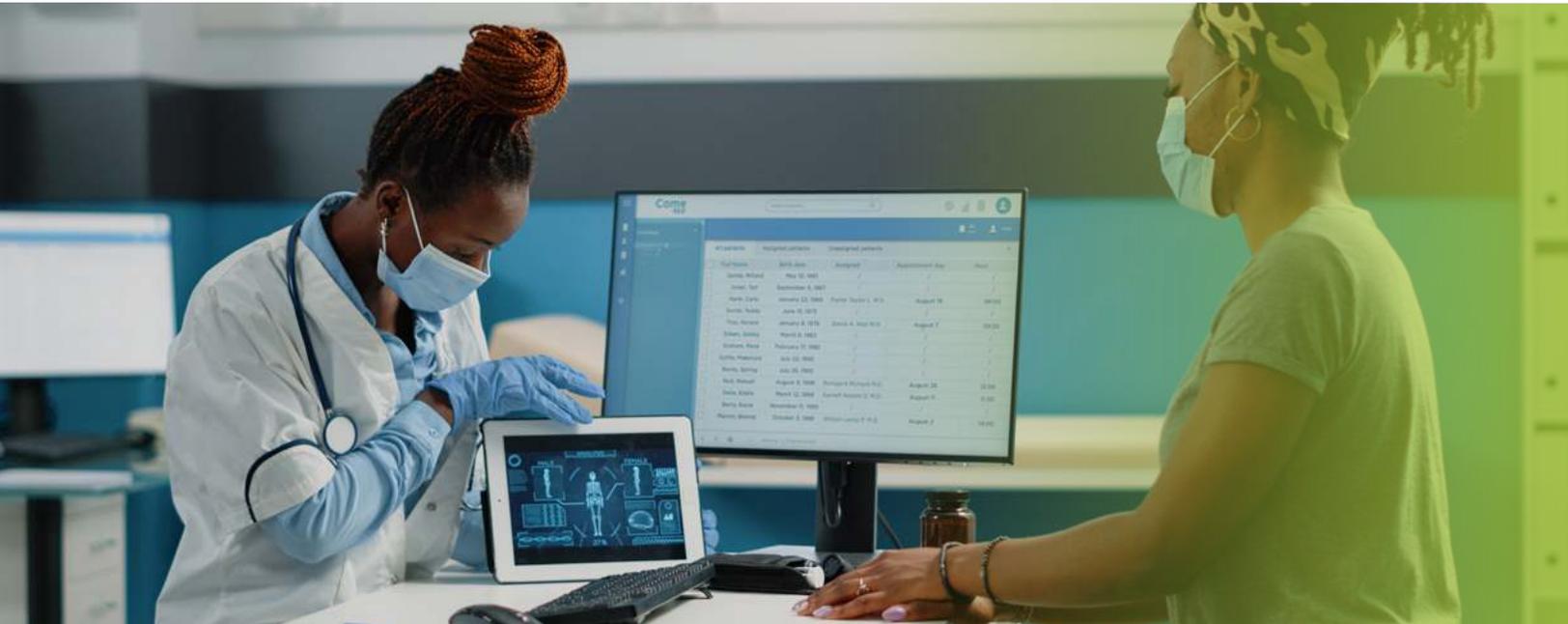
While this survey focused on several surgeries that were non-musculoskeletal, other pieces of research make the connection between the two. For instance, a [2017 article](#) published in the journal Patient Safety in Surgery reported that the number of spinal infusion surgeries continues to increase, despite there being a lack of evidence that they improve patient outcomes long-term when compared to less invasive treatment remedies.

Promoting Better Patient Education

In addition to being accurate, 3D posture measuring devices also promote patient education. Getting a patient's "buy-in" is impossible if they don't understand the connection between chiropractic and improved health or decreased pain. It is up to the practitioner to connect the dots for them and a posture measuring device assists in this process.

The patient needs to understand how structural issues cause functional issues (such as weak or tightened muscles or decreased mobility) and how functional issues cause symptoms (pain, numbness, tingling, or stiffness). Without knowing how their posture is connected to their pain, they are less likely to care about their structural health. When they do make this connection, however, it becomes easier for them to begin and adhere to prescribed treatment remedies.





Documenting Objective Results

A major issue that frustrates patients and causes them to lose faith in a practitioner's abilities is when one practitioner's result differs from another. Which practitioner should they believe? The answer is the one that offers a more objective assessment through visual, measurable, and accurate results.

Visually displaying results using a posture measuring device is one of the best ways to demonstrate objectivity. The patient must be able to easily see their posture and then compare it to normal posture. In other words, a 3D posture measuring device adds diagnostic validity by offering visually comparative assessments. If the patient cannot trust what they see with their own two eyes, they are less likely to believe that there is an issue at all, especially if they have lived with the condition for a long time.

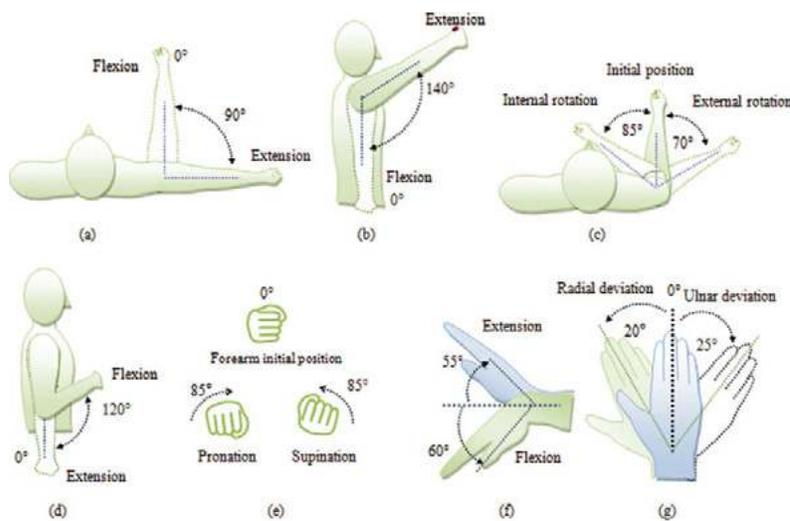
But seeing may not necessarily mean believing. It's not enough to simply show a forward head carriage or that one shoulder is higher than the other. Patients want to know how much their head falls forward or how high their shoulder is. Then they want to see how these measurements compare to normal values. The process of measuring posture, therefore, serves two purposes. One, it provides a more precise understanding of the patient's current postural structure. Two, it helps the practitioner identify treatment effects by comparing the initial measurement with measurements taken at pre-defined points in the treatment protocol.

Finally, it goes without saying, a 3D posture measuring device must be accurate. In the case of postural alignment, taking measurements that utilize the provider's skills to locate a patient's palpation points provides the most accurate assessment. Using lasers to mark these points also tends to be more accurate than adding lines to photos. What's even better is allowing a computer software program to generate posture measurements without relying on a provider's input. Patients, in this case, will believe their provider's results are accurate, true, and without bias.

3D ROM System

Many musculoskeletal issues show up in the form of abnormal ranges of motion (ROMs) such as hypomobile or hypermobile articulations. One of the best ways to assess a patient's mobility is to use a 3D ROM system. This tool helps the practitioner in three ways:

1. It generates an accurate prognosis
2. It identifies patients risk factors
3. It documents objective findings



Generating Accurate Prognosis

Progressing conditions generally take a predictable path. The further the patient is along in this path, the greater the pain they will likely experience and the more reduced their range of motion. A 3D ROM system can help identify how advanced their condition is, enabling the practitioner to assess a more accurate prognosis.

One way ROM systems help determine the patient's prognosis is to show the severity of abnormal movements. When it comes to hypomobility, significant restrictions can mean a much slower recovery. Hypermobile joints can indicate severe ligament injury or if chronic conditions exist, like Ehlers Danlos Syndrome (EDS) and Hypermobility Spectrum Disorders (HSD). In both cases, the patient's prognosis can involve certain permanent impairments, activity limitations, or periods of restrictions.

Another way 3D ROM Systems help determine the patient's prognosis is to determine disabilities. Disabilities can be in the form of functional movement activities, work-related activities, or activities of daily living (ADLs). When a patient has reached maximum medical improvement and their abnormal movement patterns become permanent, there is a prognosis for certain disabilities.

Identifying Risk Factors

A 3D ROM system assists chiropractors in determining which factors the patient faces that can put them at increased risk of musculoskeletal injuries. For example, if the patient works on an assembly line, their abnormal ROM could put them at risk for developing repetitive strains.

Repetitive movement injuries can also be related to hobbies or ADLs if abnormal ROM exists. For example, someone who plays golf every weekend may have a greater risk of tearing their rotator cuff or developing shoulder impingement or tendonitis. Runners could have an increased risk of plantar fasciitis, runners' knee, and iliotibial band syndrome according to [Cleveland Clinic](#). A 3D ROM system can help identify the cause of these issues that result from repetitive activities.

Other injuries can result after long periods of inactivity. A sedentary lifestyle puts people at risk for acute strains when they suddenly become active. As the saying goes, "motion is lotion." Therefore, a patient who has a desk job all week should know how their ROM limitations could affect them before they act as a weekend warrior.

But as chiropractors are acutely aware, most injuries don't have to happen from strenuous activities. They can also develop slowly and asymptotically from progressing mechanical issues. In this situation, the injury may occur insidiously or from doing a trivial event like picking up a toothbrush. Again, a 3D ROM system allows the provider to catch these mechanical issues and thereby prevent such acute injuries from occurring.

Finally, a 3D ROM system can determine risk factors associated with chronic conditions. As an example, [research](#) shows that musculoskeletal pain is more common in people who have physically demanding jobs, particularly when those jobs involve a lot of kneeling and squatting. If your patient works in this type of role, they may be at risk for pain or symptoms associated with chronic conditions like degenerative joint disease. Using a device to assess the proper joint mobility aids in the prevention or progression of issues in these situations.

Documenting Objective Findings

As previously discussed, one of the best ways to demonstrate objectivity is to display results visually. A 3D ROM system that visually compares normal to abnormal movement patterns is a powerful way to educate a patient about their musculoskeletal health. Without these visual cues, it would be harder to sell care, particularly if their condition has developed slowly over time and, therefore, has become their norm.

We also said that a diagnostic test must be measurable if it is to be objective. A 3D ROM system is no exception. It shows both the practitioner and the patient where they stand today and the effectiveness of their treatment. When the patient can see a specific measurement that shows how much their range of motion has improved, they are encouraged to stick to and complete their treatment regimen. It provides a form of proof that what you and they are doing is working.

Lastly, an objective test should be unbiased. As for a 3D ROM system, it must display measurements from a computer instead of a provider's input. This reduces the risk of equipment operator bias. It must also allow the patient to move freely without any provider handling. Such a method of using patient-driven results reduces the risk of examiner bias.

Functional Assessment Tests

One of the easiest ways to assess and manage a patient's musculoskeletal health is to perform functional outcomes assessment tests.

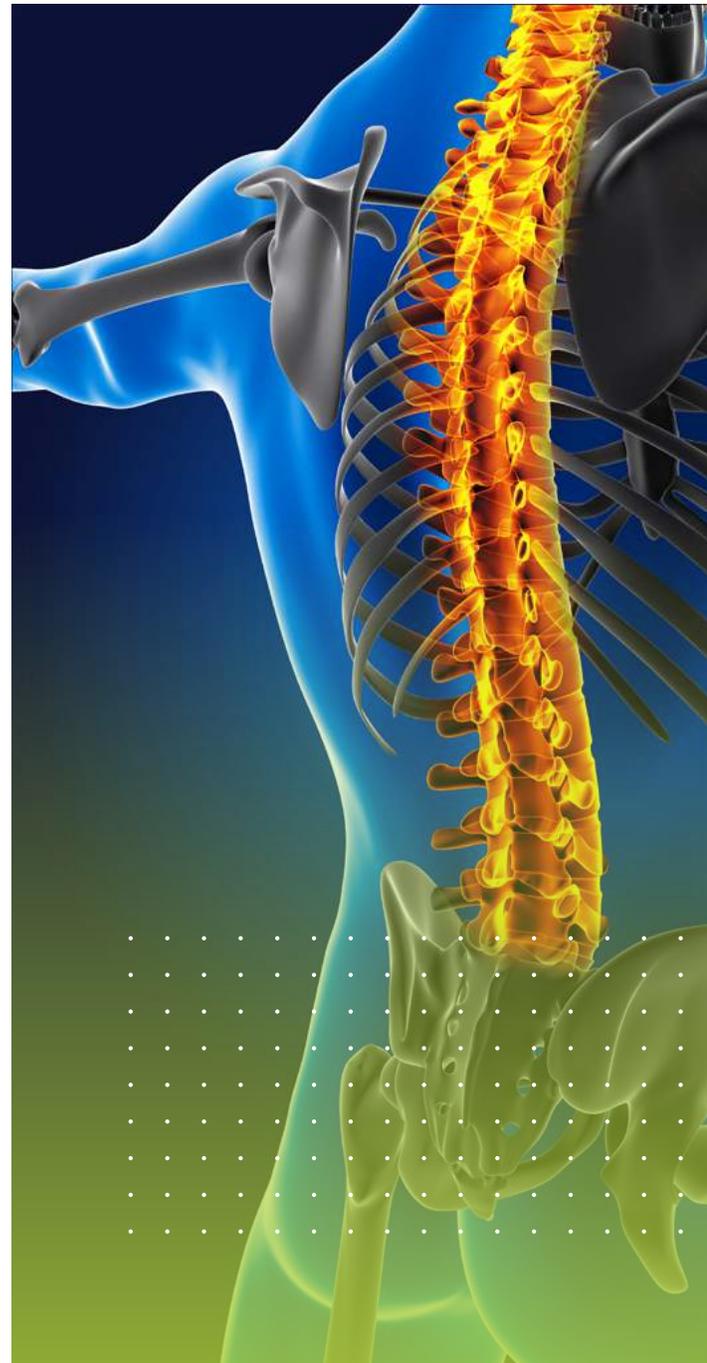
These tests help the practitioner determine what disabilities exist, what risk factors may be present, and whether the symptoms are related to the specific structural or functional issue.

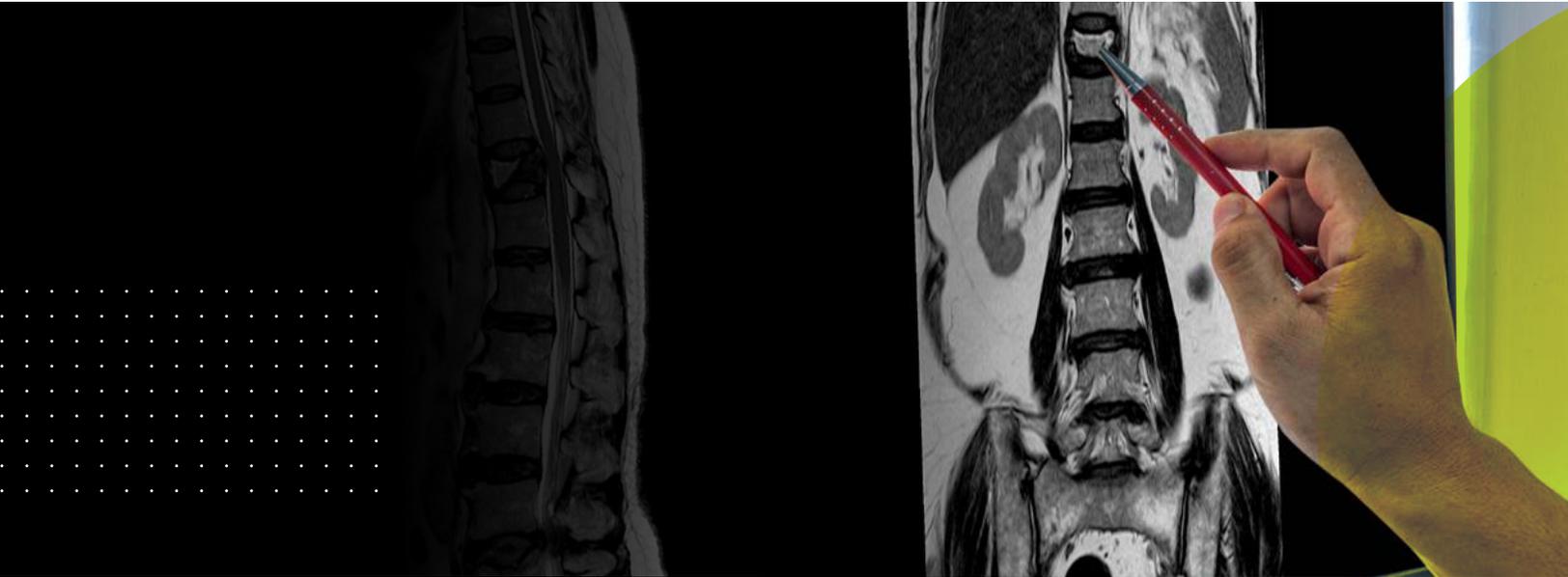
Functional Tests Determine Disabilities

Functional assessment tests help providers understand if disabilities exist within the patient's work environment. For example, their workday could be spent performing repetitive tasks, creating wear and tear in certain joints. Or their work may be strenuous, increasing the stress that is placed on muscles and ligaments. In either case, functional tests can determine where these disabilities exist and where to modify work activities to prevent continued injury.

Functional tests can also be used to identify movement limitations that negatively affect the patient's ADLs. Are they experiencing symptoms in their extremities when doing the dishes or crocheting? Do they struggle to put on their pants without feeling that they are going to fall over or hurt their back? A functional test makes it easier to identify why the chore or self-care activity is difficult or painful to perform.

Maybe the patient has noticed ROM limitations or pain while engaged in their favorite hobby or some leisure activity. While some may argue that these issues are not as important as identifying disabilities related to work or ADLs, they can still impact the patient's quality of life. One **study** involving 1853 people aged 65 and older found that having a hobby not only increased longevity but also helped the subjects retain their health longer. So, determining disabilities that are preventing patients from participating in these types of activities can offer them a longer and pain-free life.





Functional Tests Determine Risk Factors

Functional outcomes tests also bring certain risk factors for injury to light. They can reveal if patients are at risk for relapses, for instance. **Research** published in *Physical Therapy in Sport* connects a lower posterior-medial reach distance with an increased risk of an ankle sprain. Performing a functional assessment that looks at the patient's reach distance, then, can help identify if they need to be cautious to prevent this sprain.

Functional tests can also determine risk factors for injury when accidents occur. For example, older patients are especially at risk for slips and falls. Roughly 26 million older adults fall every year according to the **Centers for Disease Control and Prevention** (CDC), with 32,000 of these falls taking a person's life. Of those who don't succumb to the fall, one in five will experience a fall-related injury which sometimes means a lengthy recovery. Using a functional test that assesses their balance and stability can determine their risk for falling and provide ways to prevent such accidents.

Finally, patients who are at risk for injury due to chronic symptoms such as osteoarthritis or core weakness will understand the severity of this risk through functional tests. If the provider can uncover the factors that put them at risk using functional tests, they could positively impact the patient's prognosis.

Functional Tests are Specific

When traveling to a place you've never been, you likely use some type of GPS to help you get around. Now, imagine trying to use the GPS without inputting a specific address. While this might help get you to the general area, you're still going to be left struggling to find the home or business that you want. This example highlights the importance of functional tests and how they help diagnose injuries.

Functional assessment tests are used to pinpoint both the cause and location of the injury. Is it a muscle issue, causing the muscle to tighten or weaken? Perhaps the issue is in the patient's joint, resulting in either hyper or hypomobility. It might even be a neurological issue from exercise-induced claudication or faulty proprioception.

When your functional assessment enables you to tell the patient exactly what is creating their problem, you become the practitioner who supplies answers. There is no guessing as to what might be causing their issue. There is only clear and convincing evidence. Now armed with your GPS-like treatment protocol, you have the green light to fix the patient's problem.

3D Orthotic Assessment Tools

The fourth diagnostic tool that adds value to your chiropractic practice is a 3D orthotic assessment device. Aside from assessing the structural health of the foot, this device has several other benefits like:

1. **Correcting problems related to the trunk and lower extremities**
2. **Finding the direct cause of pain**
3. **Providing an easy-to-use solution**

Correcting Trunk and Lower Extremity Issues

Many musculoskeletal issues can be linked to problems in a completely different area than where the patient is feeling symptoms. A common problem area that results in pain in other areas is the feet. Because the feet are the start of the kinetic chain, problems here can directly impact areas like the trunk and lower extremities.

Examining the foot using a 3D orthotic device, therefore, is essential to understanding the rest of the musculoskeletal system. For example, pronated feet often cause knee or hip issues. Increased plantar pressure on one side can indicate a leg length deviation. Only by addressing the mechanics and structure of the feet, can these such problems can be avoided.

Finding the Direct Cause of Pain

Perhaps the pain is directly rooted in the patient's feet. They might have fasciitis, capsulitis, tendonitis, or nerve entrapments. Whatever the cause, a 3D orthotic assessment can help find and correct it. This also helps educate patients as to how the structural and functional issues in their feet have led to their pain. It's another valuable tool that helps patients connect the dots.

Providing an Easy Solution

They say that some of the best solutions are the easiest. This is true for a 3D orthotic assessment device. It reduces the amount of effort and time needed to diagnose patients. The device is easy to use and results are quick to obtain. The patient simply steps on a pressure sensing mat and a software program automatically shows the patient's pressure distribution between the three arches of the foot.

A report of this pressure map makes it easy for a patient to understand their issues and how to correct them. Many devices allow both the patient and the provider to modify their orthotics before ordering. Maybe the patient would benefit from overcompensating or under compensating for fallen arches. Whatever the reason, this level of additional customization brings more value to the patient's care.

Finally, patient compliance and satisfaction in wearing the prescribed orthotics are shown to be very favorable. Orthotics are comfortable to wear and require management to use. The result is a simple, comfortable, and quick way to fix issues with little effort on the patient or provider's part.

Putting It All Together

To recap, improving the value of your care directly correlates to increased income. An important way to do this is to use certain diagnostic tools that communicate the value of your care. Of the many tools available, four stand out. They are: **1) 3D posture measuring devices, 2) 3D ROM systems, 3) functional assessment tests, and 4) 3D orthotic assessment tools.**

When combined, these tools are a powerful way to educate your patients on the value of your care. This makes it possible to justify charging higher rates for your services, rates that can be on par with many orthopedic services. Ultimately, they support continued practice growth by increasing leads and patient conversions.

If you're interested in a device that combines many of the tools mentioned in this report, check out **WunderTrack**. WunderTrack is a 3D posture measuring tool with add-on modules for 3D orthotic assessment and bilateral weight distribution. These combined exam tools offer a quick and total assessment of a patient's structural health.

The 3D posture device measures 11 posture points including kyphosis, swayback, and rounded shoulders. There is no need for awkward patient photos or to have patients wear special clothing. The technology simply works by positioning laser lines over palpated bony landmarks, then using a camera to measure misalignments between the lines.

The 3D orthotic assessment module automatically captures a pressure map of the patient's foot and sends the information to a 3D orthotic print service. The provider can customize suggested orthotics to match the patient's needs. For more information on WunderTracks 3D orthotic module, go to <https://wundertrack.com/product/orthotic-pressure-mat/>

Additionally, WunderTrack's integrated dual scales measure right and left-sided weight distribution. This add-on tool shows providers where a patient's balance is uneven.



For more information on WunderTrack and its products, visit [WunderTrack.com](https://wundertrack.com) or call **(888) 807-3668**.