



# The Definitive Guide to Multiple Impulse Therapy (MIT) Chiropractic Tools

A deep dive into computer-assisted analysis & adjustment to complement manual chiropractic treatments

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# MIT's Place In Chiropractic

**No matter how many years you have been practicing, MIT can lengthen your career.**

Chiropractors are taught how to use their healing hands for good, but it is becoming clear that additional chiropractic tools are essential in order for chiropractors to remain and thrive in private practice.

More than 40 percent of chiropractors experience a workplace injury in their lifetime, and that does not factor in the accumulative wear, tear and strain that they sustain over the course of their careers, which prevents them from practicing for longer.

Unfortunately, studies show that, in today's market, students are spending an average of [\\$150,000 in undergraduate and chiropractic school tuition](#) and much more to get started in their careers—meaning that the overall length of practice is more critical than ever for chiropractors to pay off debt and enjoy respectable earnings.

**Chiropractic tools which reduce strain on the doctor and patient are the future of chiropractic**

Chiropractors are also trying to deal with patients who are fearful of manual adjustments. More and more, patients are resisting “popping and cracking” chiropractic treatments, and opting out of chiropractic care entirely for pain in more delicate areas, such as the neck, wrists and feet—even though chiropractors are more than equipped to treat those conditions.

For these reasons, chiropractic tools which reduce strain on the doctor and patient have become the future of chiropractic. [Palmer College of Chiropractic](#) recently recognized this shift in the chiropractic profession by introducing an Assisted Adjusting Techniques course into the curriculum, which features the use of Multiple Impulse Therapy (MIT). Multiple Impulse Therapy, defined in detail for you below, is now the gold standard technological advancement being used to extend chiropractic careers and provide gentle treatment to patients, with results they can see.

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*“You asked if the PulStar ‘really does what I said it does.’” Yes, it does. It’s a very versatile instrument in that it both evaluates and adjusts... the PulStar is at least as good as any other system of analysis and adjustment, and better than most. 90% of my practice is now instrument, and it has greatly reduced the physical and mental stress of practice. I wish I’d switched 5 or 10 years ago, because it would have saved me a lot of wear and tear.”*

[Click here to read about Dr. Walton's first year and a half using a PulStar.](#)

— Steve Walton DC  
Maui, HI

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## What is MIT?

Multiple Impulse Therapy (MIT): the use of gentle impulses, employed by a skilled practitioner, applied to an area of musculoskeletal misalignment through the use of a computer-assisted impulse device to relieve pain or discomfort.

### The Early Days

It all started in the 1980s. Dr. Joseph Evans, developer of the PulStar system, designed the Model 115 Precision Adjustor, which was presented in 1987 at the Las Vegas Conference of the ACA/ICA. Dr. Walter Vernon Pierce soon joined the team in a marketing capacity because he believed it was a vital tool for the chiropractic world.

Sense Technology, then known as Kinetic Technology, was founded in 1989, when Multiple Impulse Therapy really started taking off in the chiropractic industry. In the beginning, MIT tools did not include any measure of spinal stiffness. The original instrument did actually contain a computer to time the impulse and vary the force levels.

The first PulStar device including an analysis and adjustment feature was released in 1993. Since then, competing MIT devices have also entered the market, in all shapes, sizes and levels of computerization, including: Impulse IQ® Adjusting Instrument by Neuromechanical Innovations; SA 201, Smart Adjustor or Ultralign by Sigma Instruments; Activators 1-V by Activator (part of Activator Method®); and Pro Adjustor, which is no longer in business, but was well-known.

### The Systems of Today

The PulStar remains the leader in Multiple Impulse Therapy. Thanks to a dedicated team of researchers and developers led by Dr. Evans. The [PulStar systems](#) of today have come a long way from that original model in 1993. The impulse therapy analysis/ treatment tool has become nearly effortless to operate, offers customizable settings for individual patients and has multiple attachments to achieve various chiropractic methods. The sophisticated PulStar chiropractic software provides accurate analyses that are easily understood by both doctor and patient, allowing patients to see evidence of their own improvement. Patient viewing screens, integrated patient treatment stands and system portability are examples of some of the incredible features offered with the PulStar suites of today.



*The Model 115 Precision Adjustor Product Survey conducted at the 1987 Las Vegas Meeting of the ACA/ICA was most successful. Pictured above (L. to R.) enjoying a break in the survey are Dr. Joseph M. Evans, Chief Executive Officer, Kinetic Technology; Dr. T.T. Allgrezza, D.C., Boise Idaho; E. Rex Moore, Technical Director, Kinetic Technology.*

All of these features are a result of Sense Technology's commitment to research that advances MIT, innovation and dedication to their global network of PulStar chiropractors.

## Who Is Behind the The PulStar



### **Dr. Joseph Evans, Sense Technology Founder**

Dr. Evans returned from Vietnam in 1967 and decided to finish his PhD thesis at Carnegie Mellon University (CMU) in Pittsburgh, PA. He spent three years evaluating and developing a heart assist device for his thesis project before graduating with a dual PhD in Civil and Bio Technology (the first of its kind from CMU). Westinghouse

received a contract to further develop the heart assist device, so Dr. Evans went on to work for the company, eventually as the head of the Bio Systems Instrumentations Group. He spent five years at Westinghouse. Later he patented a coke oven sealant that was sold to companies throughout the steel industry, Dr. Evans became an entrepreneur and started his own company. He spent many years in that role, but was looking for the opportunity to get back into developing products for the medical field. When he was given the chance to review the design of a chiropractic adjustment tool in the early 80s, he jumped on the opportunity with enthusiasm. From that time on, Dr. Evans has been dedicated to research and product development for the chiropractic industry, and his PulStar products are now used by thousands of chiropractors worldwide.



### **Christian Evans, Sense Technology President**

Christian Evans began working for his family's business, Sense Technology, in 1993. He was a Systems Analyst for the company at that time, and in that capacity, he assisted with much of the computer programming and software engineering for the PulStar systems. He left Sense Technology in 1997 to study Philosophy at Goucher College in

Maryland, while also working as a consulting analyst at an IT firm in Turtle Creek called Innovative Decisions, Inc. Christian returned to Sense Technology in 2003, at first as a software developer and later as the President of the company. Today, Christian is responsible for the operations of Sense Technology.

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*"THANK YOU for the new head and the great customer service. I called you after 5 p.m. on Thursday and had the new head and the computer program update by 10:30 a.m. Friday. The new head is an amazing improvement. Virtually ALL my regular patients feel the difference. It feels more intense, and it delivers better results, in my opinion. I will update my other PulStar head after our income increases. Thank your dad for me for his continuing efforts to improve the Pulstar and our service to sick and suffering patients. We sure have an "unfair" advantage over our peers. I just turned 78 in April, and I still practice FULL TIME, 40 hours/week in the office. The main reason is because I can, and I love what I do with the amazing PulStar results."*

— Dr. Milo Wilcox  
Salina, KS

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## Original Research and Randomized Clinical Trials Validate MIT

**Research**—both internal for the purposes of product development, and external, conducted by other entities with an interest in musculoskeletal abnormalities—is the basis of every single one of Sense Technology's technological advancements.

### The Origins of Pain

For example, one of Dr. Evan's core studies focused on the origins of [atraumatic neuromusculoskeletal pain](#). His findings on the subject were published in the Chiropractic Journal of Australia in January, 2016, in a peer reviewed paper [explaining a poorly understood cause of neuromusculoskeletal pain.](#)" Dr. Evan's theory has broad implications for the improvement of therapeutic modalities, not just for relief from pain, but for the prevention of pain at its origin. It states that:

- Atraumatic musculoskeletal pain may begin when a muscle contracts, but a failure of the calcium pump prevents the muscle from relaxing.
- If this muscle dysfunction is not immediately corrected, it could compromise the lymphatic system, which could result in potentially serious consequences such as localized edema, decreased blood flow, production of abnormal products of cellular metabolism and other potentially serious health effects.

The idea that a muscle being stuck in a contracted state is the underlying cause of atraumatic pain could replace the existing school of thought that this type of pain is only due to overuse, buckling or trauma.

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*"You have come as my angel of mercy. Three years ago, I fell and broke my ankle, also injuring tendons across the bottom of my left ankle. Even though the bone and tendons did heal, the pain did not go away ... Remarkably, within 3 hours of applying [Essential Elements] ... I began to feel better. By the second day ... the pain was minimal, compared to what it had been. So by the third day, we contacted you again to order more lotion to ensure that we never run out."*

[Click here to read Carrie's full testimonial, which includes a 3-month follow-up of her condition.](#)

— Becky W.  
Patient (British Columbia, Canada)

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Other organizations, such as the European Space Agency, the Medical University of Lodz in Poland, Jingxi Hospital in Beijing, and the University of Zurich, have also used the PulStar to study pain—some even conducted costly [Randomized Control Trials](#) to further confirm their findings.

## How It Works

Doctor and patient can see before and after effects on screen



Intersegmental red bars show a discontinuity in spinal stiffness between two of the vertebra. Yellow bars indicate higher than expected stiffness.

The power of computer-precision multiple impulse helps you and your patient to be able to clearly see the areas of spinal stiffness and then see the effects of the adjustment.

*"This system helps me to locate the 'primary' subluxations, and identify the 'compensations'. I no longer fall into the trap of adjusting just because the patient says 'But it hurts here, too, doc! Can't you crack that one too?' When a patient sees their graph, and has a basic understanding of what it means, they want clinical improvement—not just 'popping' every sore spot."*

— Peter J. Szakacs, DC  
The Villages, FL

*"I have used sophisticated instrumentation daily on hundreds of patients for over 30 years, and have used Pulstar for the last 3. Not only is PulStar repeatable at a very high level of accuracy, but it correlates closer to the precise radiographic measurements we use, examination findings and symptomatology... I am excited each day with the ease and comfort of use to my body and ears and the results we get... If you wish to feel like a chiropractic scientist and healer, PulStar is the technology of choice. I can say that if more knew of this technology, revolving doors would have to be installed in most Chiropractic offices."*

— Brad Batchelor DC  
Boone, NC



# Areas That Can Be Treated

**Back Pain** - According to the American Chiropractic Association, one half of working Americans admit to back pain each year, and it's the most common cause of missed work. While diseases can cause back pain, more often than not it is a result of musculoskeletal issues or spinal misalignment. The PulStar system is designed specifically to treat musculoskeletal conditions, and could be ideally suited to treating back pain. » [Watch a video on how the PulStar helps this condition.](#)

**Lower Back Pain** - Lower back pain is the most common type of back pain, with over 31 million Americans experiencing this symptom at any given time. It is also the leading cause of disability worldwide, according to the Global Burden of Disease 2010. The PulStar's multiple-impulse technology, paired with Essential Elements Cream massaged to relax the muscles, can provide a clear treatment plan for lower back musculoskeletal misalignment, while also allowing for some relief between visits. » [Watch a video on how the PulStar helps this condition.](#)

**Muscle Spasm** - Spasms of the skeletal muscles are the most common type of muscle spasm. Patients complaining of brief, painful spasms are often advised to gently stretch muscles, but chiropractic care applied to the area may help to reduce occurrences of muscle spasms. The musculoskeletal therapy of The PulStar device can be applied to the area to help enhance chiropractic treatment.

**Neck Pain** - Everyday life provides a plethora of opportunities to develop neck pain—sleeping, bad posture, improper stretching and even talking on the phone can lead to this symptom. Because neck pain can happen at any time, Essential Elements Cream massaged into the neck muscles can provide immediate relief by relaxing muscles, while also being used as part of a treatment plan involving the PulStar device. » [Watch a video on how the PulStar helps this condition.](#)

**Shoulder Pain** - Stress tension and musculoskeletal pain in the shoulders is a common symptom treated by chiropractors, but sometimes patients complain about pain coming back between visits. Essential Elements Cream can be used outside of the chiropractor's office for tension relief, and when combined with the PulStar device, it can minimize tension symptoms overall. » [Watch a video on how the PulStar helps this condition.](#)

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*"I have sought out the PulStar machine at participating chiropractors for over 12 years in 4 states because I have experienced that this treatment keeps my neck in place longer than spinal manipulation. I was having headaches after conventional treatment which is a warning sign. I will never agree to any treatment other than the PulStar. Also, the headquarters of our company regularly calls in one of your participating chiropractors to treat approx 2,500 people with the PulStar with 100% satisfaction and success rate."*

— Becky W.  
Patient

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**Joint Pain** - Treatment options for joint pain are varied and wide-ranging. Many patients are choosing to add chiropractic care to their joint pain regimen, and The PulStar doctors are able to offer an additional option that is scientific, gentle, and provides a different approach to the treatment of musculoskeletal joint pain.

**Extremity Numbness or Pain** - Musculoskeletal issues are sometimes at the root of pain or numbness in the arms, legs, hands or feet. Patients are often surprised to find out that chiropractic methods aren't just used to treat back pain, and can be used on the extremities as well. Similarly, The PulStar device was designed to assist chiropractors beyond the treatment of back pain, and can provide relief to patients with pain or numbness in the extremities.

**Plantar Fasciitis** - Pain in the heel of the foot when standing or walking is often the result of plantar fasciitis, which is when the ligament supporting the arch of the foot is damaged. This musculoskeletal issue can be treated with an Essential Elements cream massage, which helps to relax the ligament connecting the heel to the toes. The effect of the cream can be enhanced with the use of The PulStar device, which helps to push the cream through the tough skin on the sole of the foot and into the affected muscle.

» [Watch a video on how the PulStar helps this condition.](#)

Related Blog Post Links:

- [Shoulder Pain](#)
- [Neck Pain](#)
- [Plantar Fasciitis](#)

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*"Last week I was in severe pain after having driven 5 days in a moving van then spending 6 hours on a plane 3 weeks later. After 2 sessions with a PulStar system I was able to walk again without having to eat ibuprofen like candy. I'd like to be able to continue this as well as traditional chiropractic care."*

— Krista  
Patient

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## Computer-Assisted MIT vs. Manual Therapy

**MIT chiropractic tools are designed to enhance and complement manual adjustments**

While the chiropractic industry was founded on the concept of using one's hands, rather than drugs or expensive surgeries, to relieve pain in a natural way, computer-assisted Multiple Impulse Therapy chiropractic tools are designed to enhance chiropractic practice.

Computer-Assisted MIT	Manual Therapy
Lengthens chiropractic careers by preventing workplace injury and decades of wear and tear.	Takes a toll on chiropractors. Many are forced to hire associates or retire earlier than planned due to work-created injuries or disabilities.
Pain-free for patients, with no alarming popping or cracking sounds.	Can cause pain, or even injury to a patient, if done incorrectly. For this reason, many patients are fearful of manual adjustments.
Gets patients better quicker, allowing chiropractors to focus on wellness plans, patient retention and practice growth. Some patients experience pain relief after just a couple of visits. <a href="#">See how it helps your patients.</a>	Chiropractors may need to see a patient weekly to maintain relief, which can lead to patient frustration.
Can analyze the area of musculoskeletal misalignment both before and after an adjustment to target problem areas and measure improvement. <a href="#">See how it works.</a>	Chiropractors must rely on their hands as a diagnostic tool.
Produces easy-to-understand progress reports that patients can take home and show to others.	Chiropractors must produce their own demonstrations and reports in order to prove improvements to patients.
Uses precise impulses determined by a scientific algorithm to prevent malpractice and tailor treatment to patients' specific needs.	Chiropractors must rely on their hands to prevent malpractice.

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*"Nobody can say with a manual adjustment that you used 20 pounds of force on this C5. It's impossible. But if anything happens you can get the printouts from the PulStar and it will show you how much force you used to treat each segment. You're not going to have anything back you up better."*

[Watch Dr. Sharp's Video](#)

— Brian Sharp DC  
Springfield, TN

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## The Ripple Effect

### More revenue and patient satisfaction, and less doctor fatigue

Introducing a Multiple Impulse Therapy device into a chiropractic setting sets a series of situations in motion, eventually leading to an overall increase in revenue over time through patient satisfaction and lack of doctor fatigue.



Dr. Steve Walton, owner and primary chiropractor at Lahaina Health Center in Maui, describes this phenomenon in detail through a series of videos and blogs. He often describes patients who were frustrated by chronic pain, and left amazed by the effects of the PulStar. He also talks about how he was able to integrate the MIT device at his practice:

*"I still have a few patients that prefer manual adjustment. But 90% of my practice is now instrument, and it has greatly reduced the physical and mental stress of practice. I wish I'd switched 5 or 10 years ago, because it would have saved me a lot of wear and tear."*

— Dr. Steve Walton

### Reports promote patient satisfaction and word-of-mouth referrals

For him, and many other chiropractors who have made the switch, the increase in referrals was immediate—particularly when they would print the automated reports for patients to take home with them. Also, by having a MIT device, they were able to immediately differentiate themselves from their competitors and prove that they value a scientific, reliable approach to their patients' health.

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*"I market by giving each patient a copy of the printout of the PulStar analysis on each visit. This simple step results in forty (40) new patients each month. I don't advertise or do screenings, I let my patients do the marketing for me."*

— Gil Morgan DC  
Missouri

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## Is the PulStar MIT Right for My Practice?



In Christian Evans' 4-minute case for the PulStar above, he makes the following points:

- With the PulStar you can do so much more than just analysis and adjusting of the spine—You can use it on soft tissue and extremities.
- It's got marketing tools built into its software.
- It's more precise and more gentle than what doctors can do with their hands, which saves doctors from practice injuries and enables a longer practice life.
- The PulStar system records the forces applied to each patient at each vertebra adjusted, providing a computer record that can greatly reduce malpractice risk.
- All this comes on the heels of a series of randomized control trials and other clinical studies performed recently that overwhelmingly support the effectiveness of the PulStar for various conditions.

[Learn More About The PulStar](#)

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*"Besides the remarkable results from a spinal correction perspective, it helps the patients clearly understand their individual treatment plans and needs. When the patient sees the PulStar graph, it's easier for me to prescribe and visually show where therapies need to be applied and why they are being used. This way I am more able to get the patients through to wellness care and a more complete recovery."*

— Peter Cox, DC  
Charlotte, NC

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