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WAYS TO ELIMINATE

**CHRONIC PAIN**

**WITH STEM CELLS**

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# Treat Your Specific Pain With Stem Cells

Whether you are suffering with knee, back, nerve, or joint pain, this chapter will cover it all. For your ease, we've collected some of the newest and most relevant stem cell related breakthroughs and laid out how they are successfully treating some of today's most prevalent chronic pain conditions.

As a quick overview, here are the topics we are going to cover:

- Knee Pain
- Migraines
- Traumatic brain injuries (TBI)
- Back Pain
- Neck pain
- Hip Pain
- Shoulder Pain
- Diabetic Nerve Pain
- Fibromyalgia Pain
- Sciatica
- Rheumatoid Arthritis
- Osteoarthritis

## #1 — Knee Pain

To start, knee pain is one of the most common types of chronic pain. Between 15-20% of American men and over 20% of American women suffer from knee pain.<sup>23</sup>

It is vitally important to receive stem cell treatments as early on in the injury phase as possible — this is especially true for knee and joint pain sufferers.

After your cells are harvested from your bone marrow or fat, your physician

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<sup>23</sup> <http://www.classicrehabilitation.com/blog/knee-pain-statistics-and-causes/>

injects the cells precisely into your joint, ligament or tendon.

At that point, the cells will adjust inflammation and/or then divide and duplicate themselves and develop into different types of cells depending on the location into which they have been injected.

...Healing your damaged or problem area in the process.

However, for patients with a severe loss of cartilage or no cartilage at all, a cell-based injection is unlikely to create a new joint.

Renowned stem cell physician Dr. Miniaci reports on this by saying, "Severe loss of cartilage typically leads to bone erosion or bone deformity, so a cell-based injection is highly unlikely to work in terms of reversing those changes," he says.



On a brighter note, even if there has been excessive degeneration, stem cells can improve your symptoms of pain and swelling.

"The earlier you can treat someone's joint pain, the better chance this has of working, making it less painful for the patient, less inflamed, and improve their function."<sup>24</sup>

Because of this, our advice is consider looking to stem cells first before a more intense procedure like a full knee or related joint replacement.

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<sup>24</sup> <https://health.clevelandclinic.org/stem-cell-injections-emerging-option-for-joint-pain-relief-2/>

## #2 — Migraines

Two pilot studies have found that stem cell treatments can be very helpful for people suffering from migraines.<sup>25</sup> Patients showed a reduction in migraine pain after treatment.

But you are probably wondering...

How are MSCs used and injected to treat migraines?<sup>26</sup>

The procedure is very simple:

- Adult stem cells are removed from adipose tissue using standard liposuction procedures (Umbilical cord MSCs could also be used)
- MSCs (either replicated outside the body or not), are injected back into the body in places targeted to help with migraines.<sup>27</sup>



The location is dependent on the type of migraine and target of pain, however, one Australian study<sup>28</sup> revealed the success of their treatment came from using diluted in a 1L saline bag and administered to patients intravenously over 1 hour.

*The stem cells were injected into the pericranial, neck, and trapezius muscles.* Researchers who led this study described the procedure as relatively simple and without complications.

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25 <http://www.neurologytimes.com/headache-and-migraine/stem-cell-therapy-migraine>

26 Mauskop, A., & Rothaus, K. O. (2017). Stem Cells in the Treatment of Refractory Chronic Migraines. *Case reports in neurology*, 9(2), 149-155.

<https://www.ncbi.nlm.nih.gov/pubmed/28690531>

27 In this specific study they were injected into the "pericranial, neck, and trapezius muscles." <https://www.ncbi.nlm.nih.gov/pubmed/28690531>

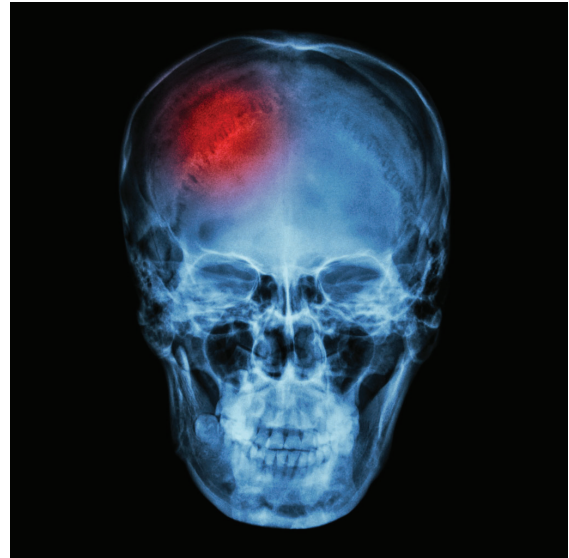
28 <https://www.ncbi.nlm.nih.gov/pubmed/24981130>

Look to the footnotes for more information on this procedure and how it may assist you in your migraine complications.

### #3 – Stem Cells and traumatic brain injuries (TBI's)

Believe it or not, stem cells may even be helpful in treating traumatic brain injuries (TBIs) as well.

A review of the literature shows that mesenchymal stem cells (MSCs) are helpful in treating TBIs because they don't elicit an immune response when injected, and they are good anti-inflammatory agents at the site of injury.<sup>29</sup>



Whether or not MSCs are effective in regenerating damaged brain tissue after TBIs is yet to be shown in the research.

Based on current research, MSCs can be helpful after brain injury to reduce inflammation. Future research may show that MSCs become new brain tissue or help regenerate tissue.<sup>30</sup>

One researcher, Charles S. Cox, Jr., M.D. has been researching cell therapy for neurological disease in pre-clinical and clinical trials for more than two decades.

One of his more recent studies have shown that autologous stem cell therapy after a Traumatic Brain Injury (TBI) is safe and reduces the therapeutic intensity requirements of neurocritical care.<sup>31</sup>

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<sup>29</sup> Hasan, A., Deeb, G., Rahal, R., Atwi, K., Mondello, S., Marei, H. E., ... & Sleiman, E. (2017). Mesenchymal stem cells in the treatment of traumatic brain injury. *Frontiers in neurology*, 8, 28.

<sup>30</sup> Hasan, A., Deeb, G., Rahal, R., Atwi, K., Mondello, S., Marei, H. E., ... & Sleiman, E. (2017). Mesenchymal stem cells in the treatment of traumatic brain injury. *Frontiers in neurology*, 8, 28.

<sup>31</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5316525/>  
<sup>31</sup> <https://www.sciencedaily.com/releases/2016/11/161103151958.htm>

His theory is that stem cells will assist to alleviate the body's inflammatory response to the trauma.

To support this theory, researchers enrolled 25 patients in a dose-escalation format with five controls followed by five patients in each of three different doses followed by five more controls for a total of 25.

The procedure was as follows:

- Bone marrow harvesting,
- Cell processing and
- Re-infusion occurred within 48 hours after injury.

According to Dr. Cox and the researchers conducting this procedure, "...despite the treatment group having greater injury severity, there was structural preservation of critical regions of interest that correlated with functional outcomes and key inflammatory cytokines were downregulated after bone marrow cell infusion."

In conclusion, stem cells assisted in relieving inflammation to help these test subjects decrease overall trauma in the brain and aide in the repair of damaged cells.

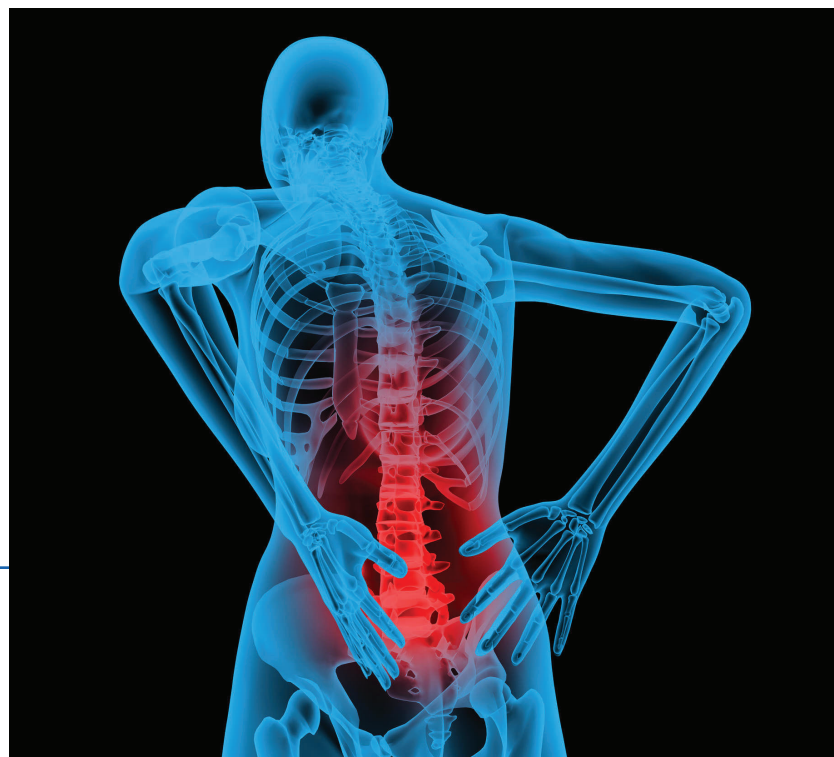
#### **#4 — Back Pain**

Many patients who have suffered with back pain are saying that stem cell treatments were very helpful to them.<sup>32</sup>

For example, legendary golfer Jack Nicklaus was plagued with chronic back pain. He would often get cortisone shots, which temporarily

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<sup>32</sup> <https://thrivemdvail.com/back-pain-stem-cell-reviews/>





relieved pain by reducing inflammation.<sup>33</sup>

Jack Nicklaus happily reports that his stem cell treatment was more effective than anything else he has tried. He had an adipose-derived MSC treatment.<sup>34</sup>

But what does the research show? MSC treatments were shown effective in rabbits with injured discs in their backs.<sup>35</sup>

This area of research is relatively new, and there are not a lot of human trials regarding using stem cells to treat back pain. A review of the back pain literature suggests stem cells could be an effective treatment, but more research is needed.<sup>36</sup>

No research was found to show that stem cell treatments are harmful to back pain. In fact, no research has been found to show stem cell treatments, when done correctly using approved techniques, have any dangers or any long-lasting side-effects.

Though the FDA is “cracking down” on certain stem cell treatments to “protect patients”, the article provided no specific evidence or specific incidences of any dangers or negative side-effects, either short term or long term, of stem cell treatments.<sup>37 38</sup>

To dive deeper into a specific study supporting this claim, we look at a case where a total of 26 patients (11 male, 15 female, aged 18-61 years) were suffering with chronic lower back pain.<sup>39</sup> Each subject's Oswestry Disability Index (ODI) and VAS pain score average was 56.5 % and 80.1 mm (0-100), respectively.

33 <https://www.healthline.com/health-news/stem-cell-treatments-provide-hope-for-easing-back-pain#1>

34 <https://www.healthline.com/health-news/stem-cell-treatments-provide-hope-for-easing-back-pain#1>

35 Sakai, D., Mochida, J., Iwashina, T., Watanabe, T., Nakai, T., Ando, K., & Hotta, T. (2005). Differentiation of mesenchymal stem cells transplanted to a rabbit degenerative disc model: potential and limitations for stem cell therapy in disc regeneration. *Spine*, 30(21), 2379-2387.

[https://journals.lww.com/spinejournal/Abstract/2005/11010/Differentiation\\_of\\_Mesenchymal\\_Stem\\_Cells.7.aspx](https://journals.lww.com/spinejournal/Abstract/2005/11010/Differentiation_of_Mesenchymal_Stem_Cells.7.aspx)

36 Freemont, A. J. (2008). The cellular pathobiology of the degenerate intervertebral disc and discogenic back pain. *Rheumatology*, 48(1), 5-10.

<https://academic.oup.com/rheumatology/article/48/1/5/1789292>

37 <https://www.npr.org/sections/health-shots/2016/09/05/491372940/researchers-question-safety-value-of-untested-stem-cell-treatments>

38 <https://www.fda.gov/forconsumers/consumerupdates/ucm286155.htm>

39 <https://www.ncbi.nlm.nih.gov/pubmed/26156727>

Patients were evaluated clinically prior to treatment and at three, six, 12 and 24 months.

Here's what they found...

Of 26 patients, 24 (92 %) avoided surgery through 12 months, while 21 (81 %) avoided surgery through two years.

Of the 21 surviving patients, the average ODI and VAS scores were reduced to 19.9 and 27.0 at three months and sustained to 18.3 and 22.9 at 24 months, respectively ( $p \leq 0.001$ ).

Twenty patients had a follow-up MRI at 12 months, of whom eight had improved by at least one Pfirrmann grade, while none of the discs worsened.

*Total and rate of pain reduction were linked to mesenchymal stem cell concentration through 12 months.* Only five of the 26 patients elected to undergo surgical intervention (fusion or artificial disc replacement) by the two year milestone.

The final conclusion — this study provides evidence of safety and feasibility in the non-surgical treatment of discogenic pain with autologous BMC, with durable pain relief (71 % VAS reduction) and ODI improvements (> 64 %) through two years.



## #5 — Neck Pain

The research on stem cells to help with neck pain is mixed.

A review from 2015 found that some studies show promise, while other studies show MSC stem cells are “unable to survive and adapt in the avascular niche of the IVD (Intervertebral disc degeneration).”

In other words, MSCs injected into the place of injury in the neck did not survive and replicate well.

Good news... we do not yet know the survival rate of stem cells when injected for neck repair when combined with PRP. Based upon other research showing increased survival of stem cells when injected with PRP<sup>40</sup>, stem cells in the future could be an effective neck pain treatment when combined with PRP.

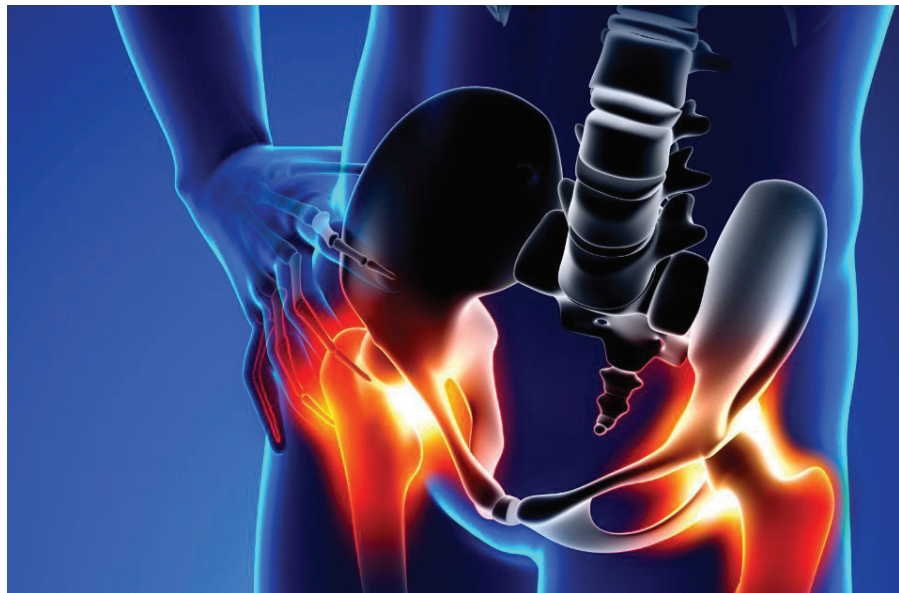
(Basically, PRP increased MSC viability by 700%, MSC proliferation by 200%, cell migration by 150%, and reduced apoptosis. Apoptosis is a fancy term for "planned cell death.")

Higher PRP concentrations were more effective in promoting MSC viability and proliferation. There were no negative side-effects on MSCs or other healthy cells from the PRP injection.)<sup>41</sup>

## #6 — Hip Pain

Very similar to knee or joint related issues, solutions for hip pain should be focused on stem cell and regenerative cell therapies instead of surgical replacements.

A recent study suggests that the treatment of hip osteoarthritis is changing rapidly. Many doctors are upset that patient education is not



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40 D'Esposito, V., Passaretti, F., Perruolo, G., Ambrosio, M. R., Valentino, R., Oriente, F., ... & Beguinot, F. (2015). PlateletRich Plasma Increases Growth and Motility of Adipose TissueDerived Mesenchymal Stem Cells and Controls Adipocyte Secretory Function. *Journal of cellular biochemistry*, 116(10), 2408-2418.

<https://onlinelibrary.wiley.com/doi/full/10.1002/jcb.25235>

41 D'Esposito, V., Passaretti, F., Perruolo, G., Ambrosio, M. R., Valentino, R., Oriente, F., ... & Beguinot, F. (2015). PlateletRich Plasma Increases Growth and Motility of Adipose TissueDerived Mesenchymal Stem Cells and Controls Adipocyte Secretory Function. *Journal of cellular biochemistry*, 116(10), 2408-2418.

<https://onlinelibrary.wiley.com/doi/full/10.1002/jcb.25235>

where it should be because of the serious complications that can arise from surgery.

Despite the availability of evidencebased guidelines for conservative treatment of osteoarthritis (mesenchymal stem cells, for instance), treatment of damaged or degenerated joints often resorts to the use of painkillers and the wait for eventual total joint replacement.

This helps confirm the gap in knowledge for hip pain sufferers and the many treatment options available to them.<sup>42</sup>

On the flip side, the research is promising for using stem cells to reduce hip pain and regenerate cartilage and bone at the hip joint.

A Korean study injected adipose-derived MSCs and PRP into two men who had hip pain from osteonecrosis. Osteonecrosis is the death of bone cells due to decreased blood flow, and can lead to degenerative arthritis (aka osteoarthritis).<sup>43</sup>

Both patients demonstrated improvements in their hips via MRIs, and both patients reported a long-term reduction in hip pain.<sup>44</sup>

Based upon the initial evidence, and many examples of MSCs when combined with PRP for reducing inflammation and pain and regenerating tissue and cartilage, stem cell treatments are an effective treatment for hip pain.

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42 <https://www.ncbi.nlm.nih.gov/pubmed/26154022>

43 <https://www.rheumatology.org/1-Am-A/Patient-Caregiver/Diseases-Conditions/Osteonecrosis>

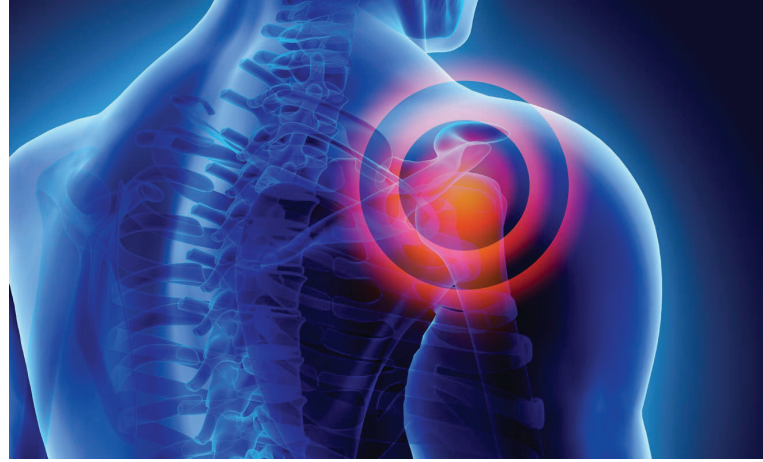
44 Pak, J. (2012). Autologous adipose tissue-derived stem cells induce persistent bone-like tissue in osteonecrotic femoral heads. *Pain physician*, 15(1), 75-85.

[https://www.researchgate.net/profile/Jaewoo\\_Pak/publication/225058904\\_Response/links/5436ca6b0cf2643ab9888990.pdf](https://www.researchgate.net/profile/Jaewoo_Pak/publication/225058904_Response/links/5436ca6b0cf2643ab9888990.pdf)

## #7 — Shoulder Pain

When it comes to your shoulders and using regenerative cell therapy, quite often the patient seeks help after a botched or mishandled surgery.

However, in the cases where injury or pain persists, mesenchymal stem cells have shown to be an effective solution for tissue repair and improvement.



Your rotator cuff consists of a group of muscles and tendons that help to move and guide the shoulder joint. Through many different reasons, the muscles or tendons can be torn and cause great discomfort.

If this happens, especially if the torn area is large or fails to heal properly on its own, surgery is often used to “sew” everything back together.

Unfortunately, this is not the healthiest or most effective approach.

Instead, patients can look to mesenchymal stem cells to repair tendons by BECOMING tendon cells and allow the body to repair itself.

Another type of stem cell that can be used is hematopoietic stem cell, which is capable of muscle repair, and can be used as a combined force in tendon and muscle repair that may help a damaged rotator cuff heal.

In fact, here are two studies that show MSC injections showing promising results for shoulder repair:

- Animal studies show that MSC injections for shoulder injuries improve healing and increase cartilage.<sup>45</sup>
- Article in the New York Times discusses using stem cells for treating injuries in athletes, including shoulder injuries.<sup>46</sup>

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45 Mora, M. V., Ibán, M. A. R., Heredia, J. D., Laakso, R. B., Cuéllar, R., & Arranz, M. G. (2015). Stem cell therapy in the management of shoulder rotator cuff disorders. *World journal of stem cells*, 7(4), 691.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444610/>

46 <https://www.nytimes.com/2007/03/29/sports/29stem.html>

## #8 — Diabetic Nerve Pain

For those who suffer with Diabetic peripheral neuropathy, it is a painful nerve condition that causes numbness or tingling and sharp pain often in the person's extremities.



It weakens the muscles and makes it very difficult to walk or stand, heavily due to the fact that balance is challenging with these symptoms.

Thankfully, a review on stem cells and treating diabetes found that MSCs can both prevent and treat various

challenges with diabetes, including issues with the heart and kidneys.<sup>47</sup>

One type of therapy, "SVF", or stromal vascular fraction, is a stem cell therapy that has been found to treat diabetic nerve pain and is positively changing health outcomes for many diabetic neuropathy sufferers.<sup>48</sup>

Dr. Bill Johnson, M.D., is using SVF stem cell therapy to treat neuropathy patients in Dallas, Texas. "Our patients report a reduction of pain in just a few weeks compared to other therapies that can take months to take effect - or never take effect at all."

SVF looks to mesenchymal adipose fat cells which are programmed during processing to attack and reduce areas of inflammation. "When inflammation is reduced or eliminated, pain is reduced or eliminated," says Johnson.

In addition to treating neuropathy pain in diabetic patients, Johnson uses

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<sup>47</sup> Volarevic, V., Arsenijevic, N., Lukic, M. L., & Stojkovic, M. (2011). Concise review: mesenchymal stem cell treatment of the complications of diabetes mellitus. *Stem cells*, 29(1), 5-10.

<https://stemcellsjournalsonlinelibrary.wiley.com/doi/full/10.1002/stem.556>

<sup>48</sup> <http://www.innovationsstemcellcenter.com/about-us/blog/stem-cell-therapy-stops-diabetic-nerve-pain-in-its-tracks.html>

SVF stem cell therapy to treat other types of neuropathy, such as nerve pain caused by chemotherapy, illness or trauma.

For more information on this study and what Dr. Johnson is experiencing, please look to the footnote citations in this book.

## #9 – Fibromyalgia

Research continues for a cure for Fibromyalgia and to better understand the root causes of this syndrome.

Fibromyalgia is characterized by various symptoms including localized pain, widespread or roving pain, tingling or numbness, stiffness, spasms and general lethargy.<sup>49</sup>

However, these symptoms vary by patient and the underlying cause has not been identified despite intensive research.

And while the prospective results of stem cell therapy and related research are bringing hope to this community, the experts are divided.

Because so little is known about the cause of Fibromyalgia, there is debate whether stem cells could help cure the illness or can only be used to manage the symptoms.

The nature of Fibromyalgia suggests that the illness is aggravated by factors other than actual damage to the areas affected by pain. Since stem cell therapy is effective because the stem cells can replace or help regenerate damaged tissues, if there is no “damage”, there is nothing to repair.<sup>50</sup>



49 <https://stemcellresearchers.org/stem-cell-treatment-fibromyalgia/>

50 <https://www.redorbit.com/stem-cell-therapy/>

So while research continues in this area, there are still two possible applications for stem cell therapy for Fibromyalgia patients.<sup>51 52</sup>

1. Stem cells may stimulate the body's natural healing process, giving it a boost towards overcoming the illness and generating healthy muscle and tissues not compromised by symptoms
2. Patients are finding relief from their symptoms as stem cells calm and control the inflammation with stem cells injected directly into the areas of pain

Treatments for Fibromyalgia often use bone marrow cells administered through an IV. Some patients have reported that their symptoms subside for varying periods of time from several months to years.

It is important to recognize that the research is still in its infancy and stem cells have not been identified as a cure for Fibromyalgia, but rather as a mechanism to cope with the symptoms and reduce dependency on conventional medications.<sup>53</sup>



## #10 — Sciatica

Sciatic nerve injury is common and usually results in degeneration of the distal axons and muscle denervation. Symptoms of Sciatica:

- Back pain
- Radiating leg pain
- Nerve pain (sharp and burning)
- Muscle weakness
- Inability to sit for long periods of time

The effectiveness of stem cell treatments regarding sciatica will greatly depend on the cause of the sciatica.

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51 <https://arrowheadhealth.com/effective-fibromyalgia-treatments/>

52 <https://prstemcell.com/news-blog/fibromyalgia/>

53 <https://prstemcell.com/news-blog/fibromyalgia/>



One clinic in Gilbert, AZ treats Sciatica and its associated ligament laxity by injecting stem cells into the origins and insertions of the iliolumbar and sacroiliac ligaments of the lumbosacral joint.<sup>54</sup>

That being said, stem cells show promise in repairing damage to the sciatic nerve. For example, multiple studies found that stem cells were able to facilitate the repair of damaged sciatic nerves in animals.<sup>55 56</sup>

In addition, stem cell injection has been investigated as an effective treatment strategy for peripheral nerve injury, and has demonstrated utility in limiting neuronal damage.

Not specific to sciatica, other stem cell researchers have found that adipose-derived stem cells were effective in repairing and regenerating damaged nerves.<sup>57</sup>

If you are interested in learning if stem cell treatments could be helpful with your sciatica, we recommend talking to a stem cell doctor who specializes in using stem cells to repair nerves and relieve chronic pain.

## #11 — Rheumatoid Arthritis

People suffering with Rheumatoid Arthritis usually experience joint inflammation. There are many symptoms that fall under this category, some of which include:

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54 <https://www.atlashealthmedicalgroup.com/stem-cell-therapy-sciatica-pain-relief-gilbert-az/>

55 Dadon-Nachum, M., Melamed, E., & Offen, D. (2011). Stem cells treatment for sciatic nerve injury. *Expert opinion on biological therapy*, 11(12), 1591-1597.

<https://www.tandfonline.com/doi/abs/10.1517/14712598.2011.628933>

56 Cui, L., Jiang, J., Wei, L., Zhou, X., Fraser, J. L., Snider, B. J., & Yu, S. P. (2008). Transplantation of embryonic stem cells improves nerve repair and functional recovery after severe sciatic nerve axotomy in rats. *Stem cells*, 26(5), 1356-1365.

<https://stemcellsjournals.onlinelibrary.wiley.com/doi/full/10.1634/stemcells.2007-0333>

57 di Summa, P. G., Kingham, P. J., Raffoul, W., Wiberg, M., Terenghi, G., & Kalbermatten, D. F. (2010). Adipose-derived stem cells enhance peripheral nerve regeneration. *Journal of Plastic, Reconstructive & Aesthetic Surgery*, 63(9), 1544-1552.

<https://medivetbiologics.com/wp-content/uploads/2014/11/adipose-derived-stem-cells-enhance-peripheral-nerve-regeneration.pdf>



- Stiffness
- Swelling
- Pain
- Redness and Warmth
- Fatigue
- Malaise
- Loss of Appetite
- Muscle Aches

Treating this condition can be considered pretty straight forward actually.

In one example, physicians will harvest stem cells from your adipose (fat) tissue, partly due to the fact that these cells have distinct functional properties including immunomodulatory and anti-inflammatory functional properties.

This is important because these properties have the ability to repair and regenerate damaged tissue associated with disease and injury.

There are multiple methods for administration to best target the disease related conditions and symptoms which include:

- Intravenously (IV) – directed into the vein
- Intranasal – administration to access a highly vascular pathway of the nose to encourage stem cells to travel past the blood brain barrier
- Directly targeted methods of administration – injected directly into the site that needs repair, i.e., muscles and tendons<sup>58</sup>

Additional research has shown...

A study in rats found that MSCs from umbilical cords were effective in reducing inflammation associated with rheumatoid arthritis, as well as "reduce the severity of collagen-induced arthritis."<sup>59</sup>

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<sup>58</sup> <https://stemgenex.com/studies/rheumatoid-arthritis-stem-cell-studies/>

<sup>59</sup> Liu, Y., Mu, R., Wang, S., Long, L., Liu, X., Li, R., ... & Yu, P. (2010). Therapeutic potential of human umbilical cord mesenchymal stem cells in the treatment of rheumatoid arthritis. *Arthritis research & therapy*, 12(6), R210.

<https://arthritis-research.biomedcentral.com/articles/10.1186/ar3187>

A review of the literature found MSCs very promising in treating arthritis, specifically RA, considering its known anti-inflammatory effects and ability to regenerate cartilage. The review did not contain any specific data on MSCs reducing pain from RA.<sup>60</sup>

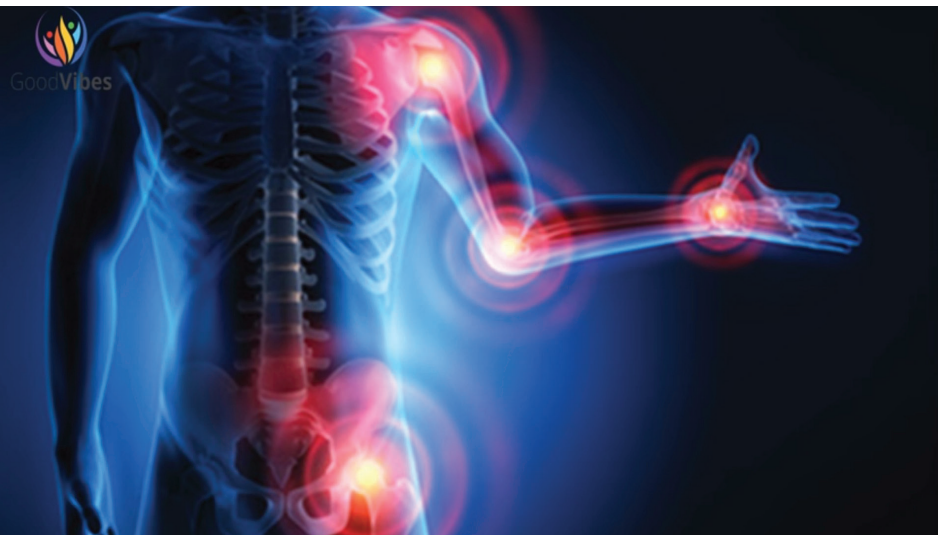
## #12 — Osteoarthritis

Osteoarthritis, also known as degenerative joint disease, is the most common type of arthritis. Typically, this condition is caused by the degradation of the cartilage in the joint.

The main function of cartilage is to reduce friction in the joints and serve as an intermediary or cushion. Cartilage is important to protect the ends of bones in normal joints.

As we grow older, cartilage may deteriorate over time, greatly decreasing its ability to fulfill its purpose — being a shock absorber for your joints. In turn as the cartilage wears away, tendons and ligaments stretch, causing pain.

There are multiple administration methods for Osteoarthritis patients to best target the disease related conditions and symptoms which include:



- Intravenously (IV) – directed into the vein
- Directly targeted methods of administration – injected directly into the site that needs repair, i.e., joints<sup>61</sup>

Further research has shown that MSCs are effective in protecting cartilage and help regenerate cartilage

60 Chen, F. H., & Tuan, R. S. (2008). Mesenchymal stem cells in arthritic diseases. *Arthritis research & therapy*, 10(5), 223.

<https://arthritis-research.biomedcentral.com/articles/10.1186/ar2514>

61 <https://stemgenex.com/studies/osteoarthritis-stem-cell-studies/>

that has been damaged from osteoarthritis.<sup>62</sup>

Specifically regarding pain, in one study 75% of those who received MSCs to treat osteoarthritis in the knee had some pain relief. In other words, stem cells reduced pain from osteoarthritis in 75% of the patients in this study.<sup>63</sup>



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62 Gupta, P. K., Das, A. K., Chullikana, A., & Majumdar, A. S. (2012). Mesenchymal stem cells for cartilage repair in osteoarthritis. *Stem cell research & therapy*, 3(4), 25.

<https://stemcellres.biomedcentral.com/articles/10.1186/scrt116>

63 Davatchi, F., Abdollahi, B. S., Mohyeddin, M., Shahram, F., & Nikbin, B. (2011). Mesenchymal stem cell therapy for knee osteoarthritis. Preliminary report of four patients. *International journal of rheumatic diseases*, 14(2), 211-215.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1756-185X.2011.01599.x>

# Six Important Factors To Consider When Selecting The Right Stem Cell Physician For You

Committing to stem cell or regenerative cell therapy is a big decision. It's not just a significant financial commitment but it's a vastly important decision for your health as well.

Which is why it is supremely important to be as prepared as possible when you do finally make that decision to find your perfect stem cell clinic.

But who do you look to?

Is it the doctor with the TV, radio, or billboard ad you seem to run into every day? Or is it the local treatment center with multiple integrated physicians?

And how can you really trust these physicians once you do contact them? How do you know who is best to commit your time, money, and effort with?

Well, all of these are very important questions and all have answers that will



vary person to person.

However, there are a select few qualifying factors that you can look for to see if your "perfect stem cell physician" will really cut it when it comes to treating your health.

*Here are our 6 most important key factors you should consider when selecting the perfect stem cell clinic:*

**Factor #1: Does your stem cell physician have experience treating your specific condition?**

First and foremost, if your physician specializes in treating knees, hips, or joints but you're interested in stem cells for rejuvenation or anti-aging, then this doctor might not be best for you.

The more they know about YOUR procedure, and the more they have done that procedure, the more likely you're going to have a better outcome with fewer complications.

*Don't be shy to ask your physician about their background and experience.*

Investigate how many times they have completed a stem cell based treatment, over how many years, and do they have personal outcome data. Ask for a specific answer and don't "feel bad" for asking follow up questions if their answers are too vague.

This is your body.

Ensure that they're talking about YOUR stem cell treatment (or similar treatment) when they're quoting success stats. If they've completed over 20 procedures, you'll know they're competent in the task, but if they've hit over 100 procedures, you'll know that they are well on their way to expert status.

When they are available, it can help to look at testimonials so that you can hear about the outcomes from previous patients as well.

## **Factor #2: Does your stem cell doctor have patient testimonials? What do their patients say?**

It's not that you can't take your doctor's word for it but... It's important to corroborate the same success information from patients that have gone through similar treatments.

Get feedback direct from the source.

There's a reason why we ask for a Carfax report before purchasing a new vehicle. Ask your doctor for patient testimonials and patient success stories.

Physicians may be resistant to share certain testimonials, as it is a HIPAA violation divulging patient information without their permission.

However, if they claim to have a significant track record of success, they should have attained permission already and have video, audio, or text based testimonials readily available on their website or within their marketing materials.

You should be suspicious if your physician does not have any testimonials on their site nor in their marketing materials, yet they claim in person to have a shining track record.

It's important to call into question their success rate, as it is your body and health on the line here.

## **Factor #3: What's your physician's success rate? Do they claim that they can heal "anything"?**

BE WARY of anyone that claims (or guarantees) your stem cell treatment will have:

- Zero complications,
- Perfect (or nearly) 100% success rates,
- And push back when you do inquire about these claims.

Even the most successful clinics have patients who do not respond as well as expected, and even the most elite doctors have patients that develop complications.

Unfortunately it's true, but in the field of medicine these things happen.

You should be highly suspicious if any physician claims otherwise. Physicians do everything in their power to minimize risks as much as possible, and some aspects of patient care are beyond a physician's control.

Anyone that tells you they have a 100% success rate or close to it are likely not being completely truthful or fabricating these results in some way or another. Just remember, even the best stem cell clinics have a success and failure rate.



The most important thing you will want to do is get real numbers on your physician's success rate for the stem cell procedure you're considering. If the provider discusses the chances of failure amidst the conversation of success, then you can assume he or she is being honest with you.

Your ideal physician should be able to determine whether their procedures will be a good fit for your condition and not. Hold your physician to a higher standard and make sure you get the right information for your health.

#### **Factor #4: Does your provider offer insurance or payment options?**

This is a big one... *and kind of an insider secret.*

On average, only 20% of patients have the ability to pay for their treatment



outright with cash, check, or credit card.

*This is important to know for a couple different reasons.*

First, you have to ask yourself whether you can afford stem cell treatment without financing or other methods of covered payment.

Depending on the treatment, paying out of pocket can be a significant financial burden so any provider that does not offer this assistance, may not be the best choice for you.

Second, if a physician does not accept insurance premiums or offer financing options, then they're not treating many patients.

If, on average, only 20% of patients pay out of pocket, then there is no possible way they are conducting that many procedures. This is important to note especially if they are claiming otherwise.

The last thing you want to do is invest in a provider that claims to have hundreds of patient success stories that logistically cannot be possible.

**Factor #5: How informative is your physician? Are they knowledgeable in your procedure?**

Education is key here... especially when it comes to your health.

Your ideal physician will take the time to help you understand the ins and outs of YOUR procedure and the process they use to treat your condition.

Whether it is in the office itself or with the pre-procedure educational material, you should be provided considerable amounts of research and helpful information to be fully prepared when the big day comes.

The more informed you are, the easier it will be to determine whether you can trust this physician or not.

Ask questions like:

- For autologous stem cells (those that come from your own body) where do you harvest them from?
- What harvesting technique do you use?
- What are the benefits of placental derived stem cells vs autologous cells?
- What are the differences in the course of care between the placental and autologous cells?
- How do you determine accuracy for injection?
- Do you use a local anesthetic and does it affect the outcome?

Be wary of any provider that is hesitant to provide you this complete understanding, especially if they are eager or "in a rush" to get in, out, and on to the next patient.

The more you know about the doctor, the clinic, and the procedure, the more informed you'll be about making the right decision. Make sure you feel comfortable with the provider as well as their clinic.

Which brings us to our final factor...

### **Factor #6: How responsive is their staff? Do they have time for you?**

This may sound strange but it is extremely important to ensure you're getting the best service from the time you step in the door to your last and final procedure.

Too often we've seen horror stories of physicians that are "too busy" or "too anxious" to completely commit themselves to your treatment and provide you the best care possible.

Now, quite often, this is no fault to the physician.

Not only is it a struggle to find a reliable doctor, but people are finding it harder and harder to even get scheduled for an initial consultation (...or even a

call back for that matter)!

Most stem cell physicians (especially top tier doctors, like the experts in The Healing Miracle) are flooded with hundreds of calls a day and their staff can barely keep up with it all.



So, if you've had little to no luck reaching out to a physician directly, it's not your fault.

The good news is that we've joined forces with a nationally recognized stem cell physicians network that has agreed to grant priority access to anyone who has invested in this resource guide (this is you!).

This group of stem cell doctors has dedicated their lives to providing the very best service and treatment no matter where you live in the world.

Here's why this is exciting.

With the information in this article, you now have a series of questions to help prepare yourself for the journey ahead of you. **You will have the upper**

**hand with the proper questions to qualify and select the perfect stem cell physician for you.**

AND...

To make it extremely convenient for you, this physician network has put together a dedicated hotline specifically to help connect you with a trustworthy, reliable stem cell doctor in your area.

**[Click here to find out which doctor is best for you.](#)**

