



Regenerative Medicine



Learn Your Options

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Part 1: What is Regenerative Medicine?

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What is Regenerative Medicine?

The field of regenerative medicine, a new and innovative medical specialty, has shown initial promise and is increasingly being used as a modality to alleviate pain, treat disease, and even impact aging. This is accomplished by studying cells and tissue engineering to understand how the body heals itself.

Instead of focusing on treating the symptoms primarily, as the current clinical approach usually does, regenerative medicine focuses on replacing the diseased or damaged tissue altogether with new and healthy tissue. At Intuitive Interventions, we have made significant progress in developing solutions through regenerative medicine to help you manage your most important asset: YOUR HEALTH.

We understand that it can become increasingly difficult for you to decide which treatment forms will provide the best outcomes with the many treatment options on the market today. As research into regenerative medicine continues and new treatments emerge, the science can often be complex and confusing. For this reason, we decided to put an end to the confusion and contribute to the education of this new-age science.

Certainly, you want to make the right choice for your body. And while online articles only debate the pros and cons of popular therapies, which is often framed in terms of choosing one over the other. However, we are here to show you how to stack technologies to have the best outcome possible.

There is no need to decide between one therapy or another but rather understand which treatment will serve your specific needs depending on where you are in your healing journey. For this reason, it's important to know how each regenerative medicine treatment modality works, how they differ, and when it should be implemented. Let's begin by discussing the most popular therapies in the field of regenerative medicine and what the REAL difference is between them, so you can make an informative decision.



Part 2: Stem Cell Therapy, Generating Specific Cells to Meet Specific Needs

Regenerative medicine requires the use of living cells to aid in the repair and replacement of damaged tissues. Stem cells have been extensively researched for this purpose.¹

Stem cells are the building blocks of the body. These are cells with the potential to develop into any kind of specialized cell such as heart muscle cells, brain cells, blood cells, and so on.²

Stem cells are also characterized by their unique ability to self-renew by making copies of themselves and, as such, serve as a repair system for the body.

Stem cells are different from other cells in the body in three ways:

- They can divide and renew themselves over a long period of time.
- They are unspecialized, so they cannot yet do specific functions in the body.
- They can develop into any specialized cells, such as muscle cells, blood cells, and brain cells.²

The sources from which the stem cells are derived to be used in regenerative medicine therapies are under constant scrutiny for safety and efficiency.

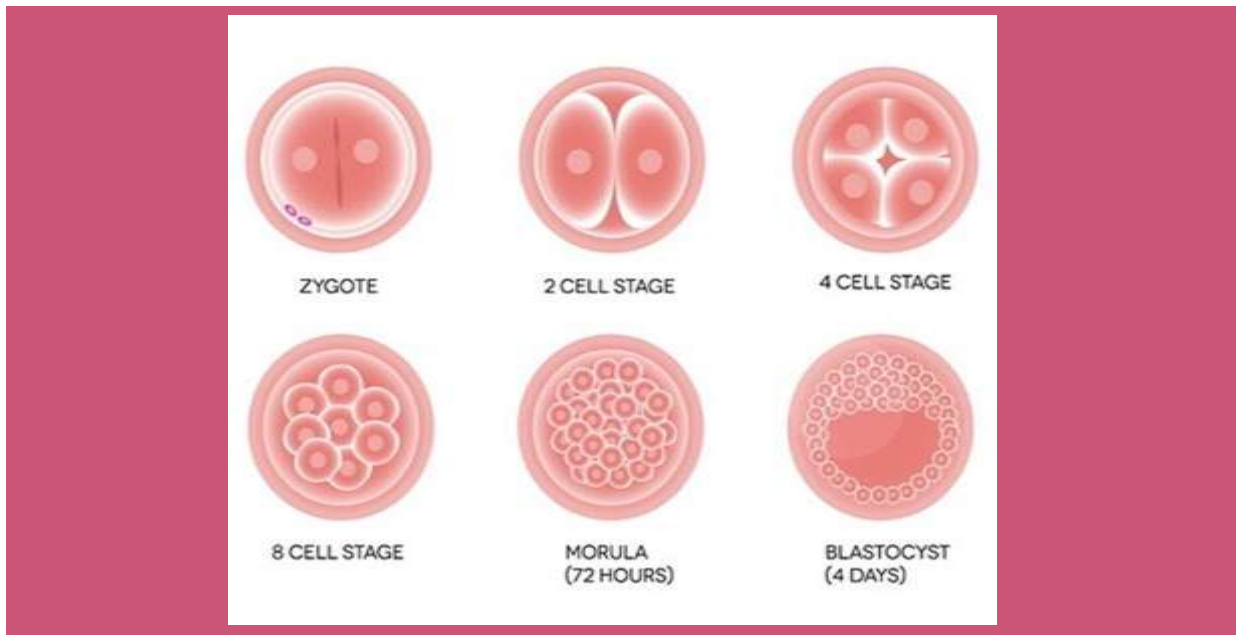
There are two main types of stem cells:

Embryonic Stem Cells

Embryonic stem cells are obtained from the inner cell mass of the blastocyst, which is a structure formed in the embryonic development of mammals.²

It is a hollow ball of cells that forms three to five days after a sperm cell fertilizes an egg cell. A human blastocyst is about the size of the dot above this: i. However, being derived from the destruction of embryos, there are serious ethical concerns around the practice.

Embryonic stem cells are exceptionally capable of reproducing into multiple types of specific adult cells and self-renewal. This adaptability allows embryonically derived stem cells to restore damaged tissues and organs in regenerative medicine.

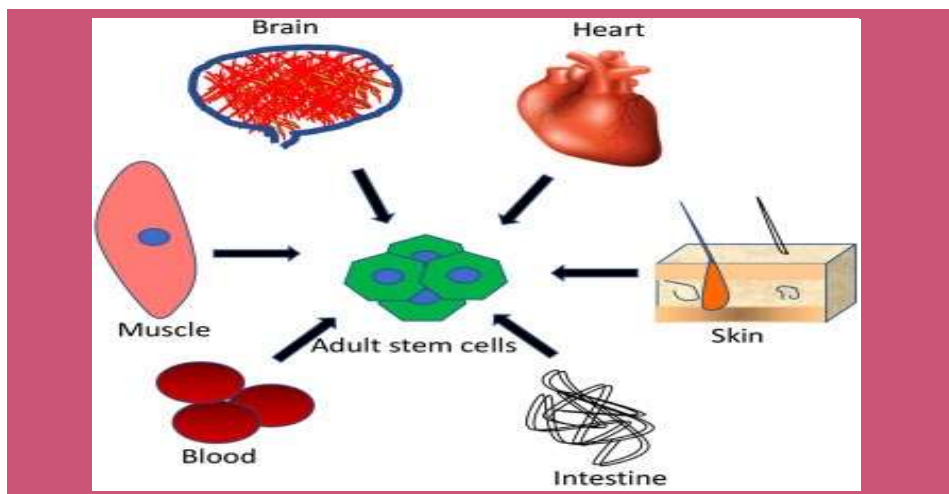


Adult Stem Cells

Unlike embryonic stem cells, the use of adult stem cells in research and therapy is not controversial because obtaining adult stem cells does not require the destruction of an embryo. Adult stem cells are isolated from a tissue sample obtained from an adult.²

Adult stem cells, similar to embryonic stem cells, can differentiate into more than one cell type. However, unlike embryonic stem cells, they are often restricted to a specific lineage. The ability of an adult stem cell of one lineage to become another lineage is called transdifferentiation. Adult stem cells have a decreased ability to be reprogrammed into a specific cell needed for a particular therapy.³ For instance, bone marrow stem cells could only give rise to blood cells.

Therefore, adult stem cell therapies still require a stem cell source to be of the specific lineage needed. Harvesting and culturing these cells to the numbers required can be a challenge. They do not reproduce as rapidly as embryonic stem cells and have diminished transdifferentiation capacity.³





Stem Cell Therapies

Stem cells are used in treating multiple conditions, from heart disease to pain RELIEF®. After the stem cells are harvested, they are multiplied and reprogrammed in the lab to become the specialized cells needed for a specific treatment. These specialized cells are then transplanted into the damaged or diseased tissue, usually through an injection to the site.

Advice for Considering Stem Cell Therapies

If you're considering treatment in the United States:

- **Ask if the FDA has reviewed the treatment.** Ask your healthcare provider to confirm this information. You also can ask the clinical investigator to give you the FDA-issued Investigational New Drug (IND) Application number and the opportunity to review the FDA communication acknowledging the IND. Review this information *before* getting treatment—even if the stem cells are your own.
- **Request the facts and ask questions if you don't understand.** To participate in a clinical trial that requires an IND application, you must sign a consent form that explains the experimental procedure. The consent form also identifies the Institutional Review Board (IRB) that assures the protection of human subjects' rights and welfare. Make sure you understand the entire process and known risks before you sign. You also can ask the study sponsor for the clinical investigator's brochure, which includes a short description of the product and information about its safety and effectiveness.

If you're considering treatment in another country:

- **Learn about regulations that cover products in that country.**
- **Know that the FDA does not have oversight of treatments done in other countries.** The FDA typically has little information about foreign establishments or their stem cell products.

Be cautious. If you're considering a stem cell-based product in a country that may not require a regulatory review of clinical studies, it may be hard to know if the experimental treatment is reasonably safe.⁴



Part 3: Platelet-rich Plasma: Leveraging your Growth Factors

Contrary to what many believe, platelet-rich plasma (PRP) therapy isn't an alternative "one or the other" option to stem cell therapy. It's simply another technique of using cells – specifically a type of blood cell -- to promote healing. The term "plasma" refers to a blood component. Understanding how PRP therapy works requires a quick review of the composition of human blood.

Blood contains several different types of cells. If you look at blood through a microscope, you'd see three different types of cells, while plasma is the liquid component of blood that the cells are suspended within.

What do these cells do?

Red blood cells deliver oxygen to all parts of the body and, in turn, collect carbon dioxide to be eliminated from the body.

White blood cells are part of our immune system and seek out and destroy foreign cells that may cause disease.


Platelets help blood clot when an injury occurs, preventing blood loss and eventually becoming the scab on the injury's surfaces.⁵

Because platelets contain substances known as growth factors, they play a significant role in healing injuries. Platelets are useful for promoting healing in general. These growth factors are why PRP therapy may be helpful in conjunction with stem cell therapy.

However, normal blood plasma isn't naturally rich in platelets. Platelet-rich plasma is prepared by running the blood through a centrifuge. This process concentrates the platelets, which are resuspended into the plasma.

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The background of the image is a close-up of a wood grain, showing concentric, wavy rings of various shades of brown, tan, and dark blue. A white rectangular box is centered on the right side of the image, containing the text. The text is in a bold, black, sans-serif font.

**Part 4: RELIEF®
is Healing the
Body from the
Inside Out**



RELIEF® is different by how it is customized to your specific needs. RELIEF® utilizes this new scientific discovery of the interstitium to treat the pain and stiffness at its very source.

Perhaps you have done your fair share of research or even tried some of the regenerative medicine modalities listed above as you try to find the best solution on your journey to health and healing. However, maybe you're still looking for a solution that will get you back to a pain-free life, and you want to know what makes RELIEF® different from other regenerative therapies.

RELIEF® does not use medications, steroids, or stem cells. RELIEF® is a combination of growth factors, collagens, extracellular proteins, and bio-active molecules from placental tissues registered with the FDA. This combination is specifically engineered to catalyze the body's amazing ability to heal itself. As such, RELIEF® does not mask symptoms; it heals the root of the problem.

How does it work?

Our treatment is designed to restore and rehydrate your connective tissue, dissolve adhesions, and release trapped nerves that may cause stiffness, lack of mobility, and chronic pain. This connective tissue layer, better known as Fascia or Interstitium, is a thin casing of connective tissue surrounding and holding every organ, blood vessel, bone, nerve fiber, and muscle in place.

Recent scientific research has discovered that the interstitium is not just a dense wall of collagen as they previously assumed. It is filled with multiple layers of fluid-filled pockets with fluid in between called hyaluronan. The interstitium is designed to stretch as you move. However, certain things cause the interstitium to thicken and become sticky. When it dries up and tightens around muscles, it can limit mobility and cause painful knots to develop, known as adhesions.

RELIEF® is different by how it is customized to your specific needs. RELIEF® utilizes this new scientific discovery of the interstitium to treat the pain and stiffness at its very source. We do not treat the affected area with a generalized approach. Rather than working blindly from the outside with a generalized injection or too invasively on the inside as with surgery, we utilize 3D mapping software and ultrasound imaging to identify disorganized, scarred, or damaged tissue and entrapped nerves across the interstitium that causes agonizing pain and stiffness.

Once the adhesions and entrapped nerves have been identified, RELIEF® is utilized to hydrate and restore the layer to its natural and healthy state, all without painful surgery, so you can get back to doing what you love most in days, not months.



Comparison of Regenerative Medicine Therapies

In stem cell therapy, generalized cells are developed into cells specifically needed for various injury and disease forms. This is a complex process but offers the most potential for exceptional treatment outcomes. When stem cells are applied to the affected areas, the cells will renew and replace the damaged tissue and provide pain relief.

PRP therapy, on the other hand, can be quite useful in promoting overall healing. When PRP is administered to the affected site, the platelets' growth factors are released and offer an extra shot of healing. Still, platelets' use is more general and is not customized to any specific condition, disease, or injury.

PRP therapy offers many benefits, and patients treated at BioXcellerator clinics often receive PRP therapy in co stem cell therapy represents the latest state-of-the-art regenerative medicine treatment.

While many choose between either stem cell therapy or platelet-rich plasma (PRP) therapy, these therapies are most effective when used in conjunction with one another. The best outcomes are achieved when PRP therapy is used first to restore the channel for the stem cells to travel, making the stem cell therapy most effective. However, *RELIEF®* is more effective still by how it best utilizes what has been learned from PRP and stem cell therapy, along with the latest in scientific research.



Part 5: Discover How to Get Better Now

Chronic pain does not have to be a daily reality, yet it is for so many of us. Here at Intuitive Interventions, we have created an innovative way to treat chronic pain so that you can get back to a healthy lifestyle. We are passionate about finding long term solutions instead of temporarily masking symptoms. RELIEF® is a state of the art treatment in regenerative medicine that genuinely utilizes the latest scientific discoveries.

RELIEF® has helped hundreds of individuals, from top athletic performers to weekend warriors, all with unique stories and pain points, get back to doing what they love, and it can help you too. Your body already has the power within to heal itself. RELIEF® is the catalyst to bring about that healing and transforms your body and life back into its naturally pain-free state.

Find out more about RELIEF® and how it can help you heal your body and life.

Book a virtual consultation with our doctors today to learn more and make the choice to live a healthy, naturally pain-free life. Visit <https://i2i.md/> today.



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