





CELLULAR HOPE
— INSTITUTE —

STEM CELL THERAPY VS SURGERY

STEM CELL VS SURGERY: WHAT'S THE DIFFERENCE?

Stem Cells procedures are performed by injecting your natural healing stem cells after isolating and concentrating them. While, traditional surgery uses a scalpel, hardware, or artificial components to remove, suture, or replace injured tissue.

If you're looking at your options, here are some of the high-level considerations:

COMPARISON		
Minimally Invasive	✗	✓
Scars	✓	✓
A need for hospitalization	✓	✗
Pain Medication	Months	Weeks
Bracing	Possibly	Possibly
Down Time/ Activity Restrictions	Up to 4 months	Up to 6 weeks
Physical Therapy	2x a week for 4M	2x a week for 6W
Sick Leave from Work	More	Less
Risk from Complications	Serious	Less
Covered by Insurance	✗	✗
Out of pocket cost	✓	✓
Other options if treatment fails	✗	✓

There is no doubt that stem cell is more friendly than having a surgery. Stem cell treatments use a precise, needle-guided technique to replenish your damaged area. Stem cell procedures utilize cells from your own body, are minimally invasive, use only a needle, and therefore have significantly reduced risks/complications compared to the surgical alternative.

If a surgery fails or pain returns after a surgery, there are limited treatment options – other than additional surgery to remove more tissue or replace the artificial components. If a stem cell procedure fails or pain returns, a patient can easily repeat the procedure, pursue other injection-based treatments, or, if severe enough, move on to surgery.

LET'S COMPARE MEDICAL CONDITIONS BY USING SURGERY & STEM CELLS

SURGERY

STEM CELLS



COSMETIC FACELIFT

- Bleeding / Hematoma.
- Bruising.
- Complications of anesthesia.
- Damage to the facial nerves, controlling muscles, usually temporary.
- Infection.
- Loss of hair around the incision site, but this is uncommon.
- Scarring.
- Skin necrosis, or tissue death.
- Unevenness between two sides of the face.
- Widening or thickening of scar
- Traditional facelift surgery can help smooth creases and remove sagging skin in the lower face, but it does not address lost facial volume or trigger collagen production.

- Stimulates collagen production.
- Enhances jawline definition.
- Replenishes facial volume.
- Produces natural and long-lasting rejuvenation effects.
- Results in faster recovery with minimal scarring.
- Creates a smoother, firmer skin surface.
- Produces natural improvement that lasts.
- Restores facial volume in hollowed areas of the face.



ARTHRITIS/ JOINT

- Revision surgery will be required at a later time in life.
- Long and sometimes painful recovery period.
- No guarantee of a return to full mobility.
- Infection.
- Blood clot (thrombosis).
- Damage to the nerves, veins or arteries surrounding the joint (very rare).
- Very challenging to perform, with a higher complication and failure rate.

- At ASAP, they address the underlying sources of pain while offering an opportunity for healing effects and lasting relief.
- Regeneration of tissues which fosters your own body's ability to heal itself. •Arthritis is a degenerative disease, so stopping and reversing the damage is a key goal in treatment.
- Fewer side effects.
- Stem cells harness your own cells, so there is no risk of your body rejecting the cellular material.

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HEART DISEASE

- Heart attack.
- Stroke.
- Bleeding during or after the surgery.
- Kidney and Renal Failure.
- A lung infection.
- Changes in your heart rhythm.
- An allergic reaction to the anesthesia or other materials used during the surgery.
- Injuries to your nerves in your chest, arms, or legs.
- Memory loss.
- In rare cases, death.

- Those who received stem cell therapy had a 65% reduction in non-fatal heart attacks and stroke throughout the period of the study;
- Participants with high levels of inflammation (CRP levels of at least 2 mg/L) were 79% less likely to have non-fatal heart attack or stroke after being treated with stem cells; and,
- Stem cell treatment reduced cardiac death by 80% in people with high levels of inflammation and less severe, class II HF.



DIABETES

Hyperglycemia (high blood glucose) or hypoglycemia (low blood glucose) can be an issue after surgery:

- Poor wound healing.
- Slow wound healing.
- Infection of the wound.
- Other types of infection such as pneumonia, urinary tract infections or sepsis.
- Hyperosmolar Hyperglycemic nonketotic syndrome (HHNS).
- Diabetic ketoacidosis (DKA)
- Electrolyte imbalance: A condition where electrolyte levels such as sodium or potassium rise or fall significantly, which can cause significant problems with the heart and the body's fluid levels.
- The risks people with diabetes face after surgery include.

- After being introduced into a patient, the stem cells migrate to the damaged tissue, differentiate into new b-cells, and continue to maintain a healthy level of bcells in the body. Alternatively, stem cells can be labgrown and induced into becoming insulinproducing cells. These cells could then directly replenish depleted cells in a atient's body. With these methods, Type 1 diabetes could be successfully managed without the need for the limited supply of donor cells.
- Stem cells can be used in a similar way to treat Type 2 Diabetes. Although b-cells are still present in Type 2 patients, additional b-cells could supplement the body's supply to overcome the insulin resistance present in a patient. Treatment could aim to continuously maintain b-cells levels above the required amount to combat a patient's insulin resistance.

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ALZHEIMER

•The symptoms of dementia gradually worsen over a long time, rather than coming on suddenly after an event such as surgery. This contrasts with the acute onset of delirium.

•Stem cells may have the capacity to help stroke patients through their anti-inflammatory and immunoregulatory capabilities.
•Stem Cells Restore Motor Function to Stroke Patients.
•Stem cell therapy doesn't necessarily plant new brain cells into your brain.
•Rather, it helps turns your brain into a young, cell-regenerating machine, which helps stimulate neuroplasticity and other recovery mechanisms.



STROKE

•Study found that patients who had a stroke prior to having surgery were more likely to have another stroke, a heart attack or die in the month after surgery than those who hadn't had a stroke.
•Memory loss.
•Speech/language problems.

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CHRON DISEASE

•Postoperative Complications.
•Surgical wound infection.
•Anastomotic leak.
•Anemia.
•Damage to surrounding structures.
•Malnutrition.
•Pneumonia.
•Scarring.
•Skin irritation.

•Reduction in inflammation throughout the digestive tract.
•Regulating the immune system (to control immune response).
•Repairing injured tissue within the gastrointestinal tract.

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LUPUS

A similar study from Taiwan found that people with lupus who had been in the hospital six months before their surgery were most likely to experience these complications within 30 days of surgery:

- Kidney failure.
- Pneumonia.
- Pulmonary embolism (blood clot in the lungs).
- Septicemia (blood poisoning).
- Stroke (blood clot in the brain).

•Stem cells have the ability to turn into the cells of damaged organs when they touch the damaged organs, and that being the case, they are used in the treatment of Lupus disease.

•It also treats damaged nerves and muscles in a similar manner. In this way, they may slow the progression of the disease, completely stop it or make it regress.



ANTI AGING

•Complications related to nesthesia, including pneumonia, blood clots and, rarely, death Infection at the incision site, which may worsen scarring and require additional surgery

Fluid buildup under the skin
Mild bleeding, which may require another surgical procedure, or bleeding significant enough to require a transfusion

Abnormal scarring due to skin breakdown

Separation of the surgical wound, which sometimes requires additional procedures

Numbness and tingling from nerve damage, which may be permanent

•Immunodulation (regulates immune system) that boosts disease prevention.

•Sleeping cycles are stabilized and improved.

•Skin is smoothed (facial rejuvenation).

•Age spots fade (face).

•Increased energy levels and physical activity.

•Improved memory and focus.

•Reduced appearance of wrinkles and age spots.

•Increased sex drive.

•Improved lab values.

•Decreased blood sugar levels.

•Improved lipid profile.

•Decreased creatinine.

•Decreased C reactive protein (marker of inflammation).

•Overall improvement in the quality of life.

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LIVER DISEASE

- Bleeding: A lot of blood passes through the liver, and bleeding after surgery is a major concern. Also, the liver normally makes substances that help the blood clot. Damage to the liver (both before the surgery and during the surgery) can add to potential bleeding problems.
- Infection.
- Complications from anesthesia.
- Blood clots.
- Pneumonia.
- New liver cancer: Because the remaining liver still has the underlying disease that led to the cancer, sometimes a new liver cancer can develop afterward.
- Rejection of new liver.

- Bone marrow-derived mesenchymal stem cells can effectively rescue experimental liver failure and contribute to liver regeneration and offer a potentially alternative therapy to organ transplantation for treatment of liver diseases.



KIDNEY DISEASE

- Complication such as Pneumonia.
- Damage to the Kidney and surrounding organs.
- Blood Clotting.
- Collapsed Lungs.
- An infection or cancer that can be passed on from the donated kidney.
- Failure or rejection of the donated kidney.
- Death, heart attack and stroke.

- There is mounting evidence suggesting that stem cellbased therapy has Reno protective effects to attenuate kidney damage while improving kidney function.
- Minimal risk of complications.
- You do not need to look for a compatible donor.
- You do not need to take immunosuppressant drugs.
- No risk of cross-infection.
- Stem cell treatment initiates natural healing.
- Painless, simple procedure with no blood loss.
- You do not need to take immunosuppressant drugs.

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ERECTILE DYSFUNCTION

Uncontrolled bleeding after the surgery; this condition may require an additional surgery
 Risk of infection for the first 3 months
 Scar tissue formation
 Erosion (of implant)
 Pump or reservoir displacement
 Mechanical failure
 Considerable pain for 2 to 3 months.
 Constant semi-erection for one month post surgery
 Inability to fully deflate the penis
 Having to inflate the penis every day indefinitely. This is important for device maintenance. Although not a lengthy procedure, it is another task to add to that never ending task list.
 Needs replacing in 10-15 years time
 Urination can be messy

- No recovery time is required, though excessive exercise should be avoided for a week. Some scarring can be expected where the fat has been removed
- Stem cell hair treatments can be much less invasive
- Many scientists and health practitioners are of the opinion that this treatment is the safest and the best solution to deal with hair loss and baldness.
- The stem cell therapy also plays a pivotal role in improving the hair texture to a great extent.
- As compared to the other hair restoration procedure, recovery is quick in the case of stem cell therapy.



HAIR GROWTH

- A hair transplant session can take 4 hours or more. Your stitches will be removed about 10 days after surgery.
- Bleeding.
- Infection.
- Swelling of the scalp.
- Bruising around the eyes.
- A crust that forms on the areas of the scalp where hair was removed or implanted.
- Numbness or lack of sensation on the treated areas of the scalp
- Itching.
- Inflammation or infection of the hair follicles, which is known as folliculitis.
- Shock loss, or sudden but typically temporary loss of the transplanted hair.
- Unnatural-looking tufts of hair.

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RISK OF USING ASPIRIN THAN STEM CELLS

With Stem Cell Treatment, the side effect of using Aspirin after surgery can be avoided. Below are the reasons why drug could do more harm than good according to studies



May increase heart failure: Researchers with the European Society of Cardiology report that taking aspirin raises the risk of heart failure among people with at least one pre-existing health risk. In a study of nearly 31,000 people at risk of developing heart failure, the team found that aspirin users saw their chances of a heart failure diagnosis go up by 26%.



Can trigger liver damage in hospital patients: Common painkillers, including aspirin, can cause liver damage in hospital patients. Patients with high cholesterol, cardiovascular disease, pre-existing liver disease, a history of prior surgeries are most vulnerable. The findings come from an analysis of hospital records of 156,570 individuals.



Aspirin increases likelihood of early death due to cancer in older adults: A study suggests taking aspirin daily may promote cancer progression and lead to early death among older individuals. Researchers say aspirin is associated with a 19% higher risk of being diagnosed with cancers that spread. There's also a 22% higher risk of doctors finding an advanced cancer.



Does not lower risk of dementia in seniors: Large study found that a daily low-dose aspirin provided no benefit to study participants at either preventing dementia or slowing cognitive decline.



Taking aspirin daily does not prolong healthy aging in older adults: Taking 100 milligrams of the drug daily played no role in preventing dementia or physical disabilities in otherwise healthy individuals.



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