Stem Cell Therapy

Understanding your treatment options.

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Lung Institute
Breathe Easier.

A message from our medical director, Dr. Burton Feinerman, MD

Greetings,

As the medical director of the Lung Institute, a division of Regenerative Medicine Solutions (RMS), I am excited to introduce you to a regenerative medical treatment that we have found to be effective for patients suffering from chronic pulmonary conditions.

Lung diseases can be highly detrimental to the lives of the patient and their family. Realizing the constant difficulty to breathe found in sufferers of a chronic lung disease and the lack of effective treatments to improve their quality of life, I became dedicated to helping individuals replenish some of their damaged lung tissue with regenerative medicine. At the Lung Institute, our goal is to provide patients with a better way to address pulmonary conditions and to improve our patients' quality of life and lung function. Our treatment procedures utilize the restorative nature of stem cells to promote the healing of damaged lung tissue. With this life-changing advancement and our safe and effective process, we are able to provide a positive experience for each of our patients.

Through our specialized treatment strategies, we offer a personalized form of healing for your specific condition. Our top priority is to provide you with the highest level of attention and care on your journey to breathing easier. The purpose of this patient guide is to familiarize you and your family members with our procedures and to answer any questions about the potential for regenerative medicine to help bring your life back within reach. You will also find other helpful information in regard to what your experience could be as a Lung Institute patient.

Once again, welcome to the Lung Institute. While reading this guide, feel free to call us at (855) 469-5864 with any questions. I look forward to helping you feel better.

Sincerely,

Burton Feinerman, MD
Medical Director

Welcome to the Lung Institute

We are very excited to help you begin your journey to breathing easier! As an innovative provider of regenerative medicine, your comfort and overall experience are of utmost importance to us. We promise to be with you every step of the way. We understand the challenges of finding effective and sustainable treatment options for those suffering from a debilitating lung disease. Our goal is to help you have a better quality of life by using stem cells to regenerate some of your damaged lung tissue. Through our commitment to providing a more effective way to address pulmonary conditions, we are changing lives.

Our physicians have gained worldwide recognition for the successful application of revolutionary stem cell therapies. With over a century of combined medical experience, our doctors have designed a protocol with the patient in mind, focused on safety and quality of care. At our state-of-the-art facilities, we offer highly effective autologous stem cell treatments for the repair and regeneration of damaged lung tissue. Our minimally invasive, outpatient procedures are improving our patients' quality of life and helping them to breathe easier.

Our values are the foundation that the Lung Institute was built upon and continue to serve as a model of how we operate each and every day.

Positive Outcomes
We are results-driven and have positively improved the quality of life of hundreds of people.

Patient Safety
All procedures performed by our team of medical experts are in compliance with the highest standards of safety.

Excellence in Quality of Care
At our state-of-the-art facilities, we provide a superior level of personalized care to make sure our patients are comfortable throughout the entire course of treatment.

Innovative Treatments
Supported by ground-breaking developments in the field of stem cell research, we welcome the future of regenerative medicine in the application of our life-changing medical technologies.

Integrity
At the center of our foundation, we established our values with humility and the utmost concern for ethical adherence.

Lung disease is a global epidemic

- There are approximately 64 million people affected by COPD worldwide.
- Idiopathic pulmonary fibrosis affects approximately 128,100 people in the United States with about 48,000 new cases diagnosed annually.
- Major lung diseases are the third leading killer in the United States.
- Nearly half of people suspected to have COPD go undiagnosed.

Why Choose Stem Cell Treatments for Lung Disease?

Cell Replication – Stem cells are able to renew and replicate through cell division. In the beginning, stem cells are undifferentiated, however, they have the unique ability to specialize as whatever type of cell they are near. This means that if stem cells are extracted from the patient's blood, bone marrow or fat tissue and are reintroduced to the lungs of the patient with a progressive lung disease, the stem cells will become healthy lung cells.

Rebuilding of Damaged Tissues – Since stem cells can replicate indefinitely, the healthy lung cells will continue to produce more healthy lung cells. This allows for the molecular cuing of regenerative pathways in the lungs. As a result, the transplantation of stem cells into damaged areas of lung tissue can help rebuild the diseased structures.

Anti-Inflammatory Effects – Stem cells can help prevent more damage from occurring as research has shown that stem cells possess anti-inflammatory characteristics, which are thought to reduce inflammation in the delicate alveoli, or air sacs, of the lungs.

Stem Cell Properties – Stem cells have the ability to enhance the immune system in order to restore the lungs to optimal function.

Capillary Formation – Stem cells have the ability to stimulate the formation of capillaries in the lungs. This leads to an improved blood supply to the lungs, facilitating tissue repair and increasing lung function.

Safe Transplantation – By using adult autologous stem cells, which are stem cells extracted from the patient's own body, the risk of rejection is practically eliminated.

Reference Links

http://lunginstitute.com/references

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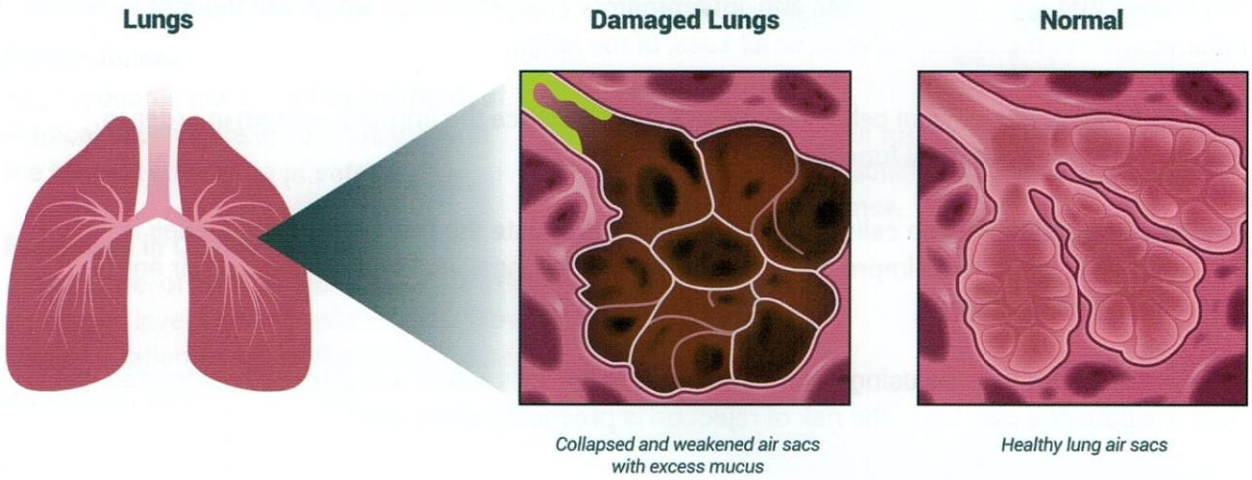
Lung diseases treated with stem cell therapy

- COPD
- Chronic bronchitis
- Emphysema
- Pulmonary fibrosis
- Interstitial lung disease (some forms)
- Bronchiectasis
- Sarcoidosis

When Should You Receive Treatment?

One of the most beneficial factors of stem cell therapy is the ability to use them as a treatment option during any stage of lung disease progression. Sufferers just diagnosed with a chronic lung disease, and those that have been suffering for years, can both receive stem cell treatments. The image below shows an example of damaged alveoli in the lungs of someone with emphysema and then an image of healthy alveoli. If you have sustained significant damage to the delicate structures of your lungs, we may be able to help.



Lung Institute's procedures

Venous (Blood-Derived) Stem Cell Procedure

The venous procedure is a highly effective stem cell procedure performed by the Lung Institute that utilizes stem cells found in the body's peripheral blood. After your Lung Institute medical team member has given you natural growth factors to stimulate stem cell production in your blood, an IV will be inserted to collect your stem cells. Once the collected stem cells are isolated and reintroduced into the body through the use of an IV, you can return to the comfort of your home or accommodations. This minimally invasive procedure takes place over the course of three days, taking just a few hours each day. Patients are typically surprised at the ease of the process.

Adipose (Fat-Derived) Stem Cell Procedure

The adipose procedure is commonly referred to as a hybrid procedure that includes the venous procedure described above and a mini-liposuction to collect adult stem cells found in your fat tissue. This hybrid procedure is minimally invasive and takes place over the course of three days, with office visits typically only taking a few hours. After the stem cells have been collected and reintroduced into your body, they can begin the healing process. At this point, you can return to the comfort of your home or accommodations.

Bone Marrow Stem Cell Procedure

Patients that do not qualify for the adipose procedure for health reasons may qualify the bone marrow procedure. By using bone marrow to harvest stem cells, patients have the opportunity to breathe easier. The bone marrow procedure is a hybrid treatment that includes the venous procedure, which uses an IV to collect peripheral stem cells from the blood, and a small bone marrow aspiration, which removes a small amount of bone marrow fluid. This two-part outpatient procedure is minimally invasive and is completed over the course of three days. Each day will require several hours in our office where the stem cells will be collected and reintroduced into your body. After reintroduction, the stem cells can begin to regenerate your lung tissue and improve your lung function.

Please refer to the 3-day process outlined on the following page to learn more about the specifics of each procedure. If you have questions about any of this information, do not hesitate to contact us.

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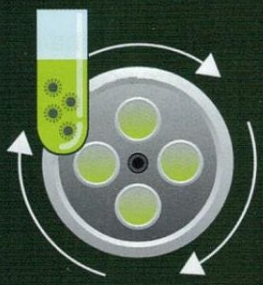
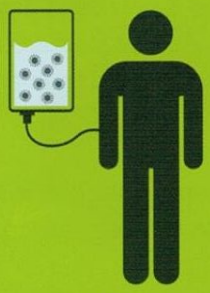
Harvest

A small amount of blood (30 cc) is taken from your body.



Separate

Stem cells are separated from the blood.



Return

The activated stem cells are returned back to you through an IV.

3-Day Venous Procedure

Venous (Blood-Derived) Stem Cell Treatment Process

Day 1: Stem Cell Transplantation

- Patient is given natural growth factors to stimulate stem cell production.
- An IV is inserted to collect peripheral blood.
- Peripheral blood is collected and then stem cells are isolated in the lab.
- Once isolated, the stem cells are re-administered to the body through an IV.

Day 2: Repeat Transplantation

- The process outlined on day 1 is repeated on day 2 for optimal results.

Day 3: Discharge

- The process outlined on day 1 is repeated on day 3 for optimal results.
- Lung Institute medical team will answer any questions and prep the patient for home care.

3-Day Adipose Procedure

Adipose (Fat-Derived) Stem Cell Treatment Process

Day 1: Blood-Derived Treatment

- Patient is given natural growth factors to stimulate stem cell production.
- An IV is inserted to collect peripheral blood.
- Peripheral blood is collected and then stem cells are isolated in the lab.
- Once isolated, the stem cells are re-administered to the body through an IV.

Day 2: Fat-Derived Treatment

- Local anesthesia is applied to extraction site.
- Mini-liposuction procedure is performed to collect fat tissue.
- The fat tissue is taken to lab and adult stem cells are isolated.
- Stem cells are reinserted back into the body through the use of an IV and nebulizer.

Day 3: Discharge

- A member of the Lung Institute medical team will check the extraction site to ensure proper healing.
- Lung Institute medical team will answer any questions and prep the patient for home care.

3-Day Bone Marrow Procedure

Bone Marrow Stem Cell Treatment Process

Day 1: Blood-Derived Treatment

- Patient is given natural growth factors to stimulate stem cell production.
- An IV is inserted to collect peripheral blood.
- Peripheral blood is collected and then stem cells are isolated in the lab.
- Once isolated, the stem cells are then reintroduced to the body through an IV.

Day 2: Bone Marrow Treatment

- Local anesthesia is applied to the extraction site.
- Mini bone marrow aspiration procedure is performed to collect bone marrow.
- The bone marrow is taken to the lab and stem cells are isolated.
- Stem cells are delivered into the body through the use of an IV and nebulizer.

Day 3: Discharge

- A member of the Lung Institute medical team will check the extraction site to ensure proper healing.
- Lung Institute medical team will answer any questions and prep the patient for home care.

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Are you a candidate for stem cell therapy?

At the Lung Institute, we understand that every patient's case is different, and therefore, we evaluate all of our patients on a variety of factors including past medical history and overall health. The factors listed below are used during our evaluation.

Disqualifying Factors for Venous or Bone Marrow Stem Cell Treatment

- Patients without a clinical diagnosis of lung disease.
- Patients who have recently received a lung transplant.
- Patients with active cancer within the last five years.

Additional Disqualifying Factors for Adipose Stem Cell Treatment

- Allergies to certain medications including lidocaine.
- Patients with extensive abdominal scarring due to prior abdominal surgeries.
- Patients without enough adipose tissue to collect for treatment.
- Patients with pre-existing heart conditions such as heart attack, stent placement, atrial fibrillation, etc.

Call a patient coordinator today to see if you are a candidate for one of our revolutionary procedures.

Typical questions you will be asked to answer.

- Diagnosis: How long ago were you diagnosed?
- What medications do you take?
- Are you on supplemental oxygen?
- Do you have a history of smoking or currently smoke? Packs per day?
- Do you have other health concerns including heart problems, kidney disease, diabetes, etc.?
- Do you have a history of cancer?
- Have you had any prior abdominal surgeries?
- What is your height and weight?

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What to expect during your time at the Lung Institute

Dedication to Patient Care

At the Lung Institute, we take a patient-centric approach to healthcare. We differentiate ourselves from other healthcare providers by utilizing patient coordinators, who are highly trained individuals that act as the patient's guide throughout his or her treatment program. Our patient coordinators are available to answer any questions our current or potential patients have about stem cell treatments for lung disease.

Outpatient Procedures
All procedures performed at the Lung Institute are outpatient. No overnight stay is required. After each day, you can return to the comfort of your home or to your included hotel accommodations.

Short Clinic Visits
The Lung Institute's stem cell procedures are performed over the course of three consecutive days with each visit only lasting a few hours. This allows patients the opportunity to explore the many entertaining sites and attractions in each of the cities where our clinics are located.

Minimally Invasive
Unlike other stem cell procedures being offered around the country, the Lung Institute's procedures are minimally invasive and do not require the use of general anesthesia. You will be able to talk to the Lung Institute medical team throughout the procedure.

Patient Experience

The process outlined below has been designed by our physicians and administrative staff to bring the utmost ease and assurance to all of our patients throughout their time with the Lung Institute. If you have any questions about the patient experience outlined below, please contact us.

Step 1: Initial Contact
From the moment you contact the Lung Institute, one of our patient coordinators will answer your questions and assess your individual case to determine your candidacy for treatment. Once you decide that our treatment options are appropriate, a free consultation will be arranged at your convenience.

Step 2: Consultation/Evaluation of Candidacy
Patient consultations take place in our office or over the phone. During your consultation, one of our clinicians will develop a personalized treatment plan for you. You may be given a brief physical and asked to contact your general practitioner and/or pulmonologist to provide medical records. You will then book your appointment for treatment.

Step 3: The Procedure
All stem cell procedures are performed on an outpatient basis in one of the Lung Institute's clinics. The entire treatment process takes place in a few hours over the course of three days.

Frequently Asked Questions

What is regenerative medicine?

Regenerative medicine is an emerging field that aims to treat the root cause of degenerative diseases that have been previously considered untreatable. In the past, only the symptoms of many conditions causing the deterioration of organs have been treated. Today, regenerative technologies are successfully reprogramming the body's cells to become healthy and to repair organs. This advancement in medicine is changing our understanding of what degree of healing is possible through the body's natural properties.

What are stem cells?

Stem cells, which divide and specialize to become different types of cells, are found in all multicellular organisms. In adults, stem cells serve to repair degenerating organs and replace dying cells with the intention of maintaining or restoring health. As a result, adult stem cells play a critical role in regenerative medicine. By transplanting stem cells in people with a progressive disease, healthy cells can begin regenerating affected tissue. Autologous stem cells are those derived from an individual's own body and are transplanted intravenously and/or directly into the affected tissue.

How are stem cells used by the Lung Institute?

The Lung Institute successfully uses stem cells in addition to a variety of other regenerative technologies in numerous applications depending on your condition. For further information on the specific use of stem cells in treating your condition, please contact one of our patient coordinators.

What types of stem cells are used by the Lung Institute?

At the Lung Institute, we utilize adult stem cells for the repair and restoration of damaged lung tissue. The adult stem cells are autologous, meaning they are taken from the patient's own body from either the blood, fat or bone marrow. Because the stem cells are autologous, the risk of rejection is almost completely eliminated – making the procedure extremely safe. Ultimately reducing the symptoms of lung disease, these types of stem cells have been known to produce anti-inflammatory and immune-enhancing effects in lung tissue.

How long have the Lung Institute's doctors been practicing these procedures?

Innovations in regenerative medicine revolutionized the practice of medicine less than a decade ago. The Lung Institute's medical director, Dr. Burton Feinerman, is an internationally recognized expert in stem cell therapy and has been practicing stem cell procedures for over eight years. Dr. Feinerman is the holder of numerous patents for technologies that are changing the way regenerative medicine can be used. So far, it has changed the lives of thousands of people. To read his biography, visit our website at LungInstitute.com.

Why aren't more doctors performing this procedure?

These advanced procedures have been perfected by the Lung Institute. Regenerative medicine is cutting-edge medical technology, and the Lung Institute is on the forefront of this movement. Additionally, these specialized methods are not taught in traditional medical schools or residency programs, but require additional stem cell training. The experience, education and knowledge of regenerative medicine and stem cell treatment of our medical team is unmatched.

Why choose the Lung Institute?

The Lung Institute offers personalized, ongoing care plans and the highest quality of patient care. The medical team at the Lung Institute is dedicated to improving both the quality and longevity of life for the patients we treat. Our streamlined treatment processes are implemented with professionalism, respect and the utmost concern for patient's safety and well-being. At the Lung Institute, each patient receives an individualized evaluation and treatment plan to produce positive outcomes.

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