Stem Cell Therapy for Chronic Kidney Disease

Fact Sheet
Can stem cell therapy help patients with chronic kidney disease?

Yes it can. It can make new cells that replace damaged cells and reverse chronic kidney disease symptoms. RMG offers patients access to chronic kidney disease stem cell therapy using amniotic stem cells. These chronic kidney disease stem cell treatments improve complications in patients with chronic kidney disease. These procedures help patients who don’t respond to typical drug treatments, want to reduce their reliance on medication, or are looking to try stem cell therapy before starting a lifelong drug treatment.

Below are some frequently asked questions regarding stem cell therapy for chronic kidney disease.

**Frequently Asked Questions for Chronic Kidney Disease Stem Cell Therapy**

1. **How do stem cells work in patients with chronic kidney disease?**

   Chronic kidney disease (CKD), also termed chronic renal disease, is a condition in which your kidneys are damaged and unable to filter blood as well as healthy kidneys can. As a result, wastes from the blood remain in the body and may lead to other health problems. It is estimated by the Center of Disease Control that more than 10% of adults in the United States – more than 20 million people – may have CKD. As kidney disease progressively worsens, wastes in the blood can build to high levels and make you feel very sick. Complications develop consequently, slowly over a long period of time, including high blood pressure, weak bones, anemia, nerve damage, and poor nutritional health. Kidney disease also increases risk of having heart and blood vessel disease. CKD may be caused by diabetes, high blood pressure and other disorders. As CKD progresses, they are categorized as stages listed below:
GFR – *glomerular filtration rate* – is a test to see how well the kidneys are working, by estimating how much blood passes through the glomeruli each minute. Glomeruli are tiny parts in the kidney that filter waste from the blood. Your GFR tells your doctor the stage of your kidney disease helps us plan your treatment. Early detection and treatment can keep CKD from getting worse!

Stem cells improve kidney function, make new blood vessels in the kidney and improve our body’s immune system to optimize the defense of the kidneys from diseases.

The increase in circulation from new vessels creates more filtering and better kidney function that decreases waste inside our bodies.

Stem cells have been shown to help avoid and reduce dialysis. This allows patients to work and continue as productive citizens. This also allows family members and friends more free time because patients regain independence. The financial benefits of eliminating dialysis and its consequences greatly outweigh the costs of stem cells. The long-term expense of dialysis is replaced by a short protocol of stem cells, which in all likelihood will eventually be a covered benefit of some insurance plans.

<table>
<thead>
<tr>
<th>Stage</th>
<th>GFR Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90+</td>
<td>Normal kidney function but urine findings or structural abnormalities or genetic trait point to kidney disease</td>
</tr>
<tr>
<td>2</td>
<td>60-89</td>
<td>Mildly reduced kidney function, and other findings (as for stage 1) point to kidney disease</td>
</tr>
<tr>
<td>3A</td>
<td>45-59</td>
<td>Moderately reduced kidney function</td>
</tr>
<tr>
<td>3B</td>
<td>30-44</td>
<td>Moderately reduced kidney function</td>
</tr>
<tr>
<td>4</td>
<td>15-29</td>
<td>Severely reduced kidney function</td>
</tr>
<tr>
<td>5</td>
<td>&lt;15 or on dialysis</td>
<td>Very severe, or <em>endstage</em> kidney failure (sometimes called <em>established renal failure</em>)</td>
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2. What are some of the chronic kidney disease complications that can be improved through stem cell therapy?

Patients who receive stem cell therapy through RMG report improvements in multiple aspects of depression related complications, such as:

- Fatigue
- Fluid retention, swelling of extremities
- Shortness of breath
- Urination changes
- Kidney pain felt in the low back
- Sleep problems
- Numbness or tingling in the toes or fingers
- Poor appetite
- Trouble concentrating
- Puffiness around your eyes, especially in the morning
- Muscle cramping at night
- Dry, itchy skin

3. What are stem cells?

*Stem cells* are special cells capable of renewing themselves through cell division, even after long periods of inactivity. Stem cells are formed at conception and have the ability to become different kinds of tissues in the body including muscle, nerve, organs, bone, blood and more. Their exceptional ability to become other types of cells makes them essential in repairing and renewing every kind of tissue and body organ. Unlike other types of cells in the body, *stem cells* can divide and replicate repeatedly. Stem cells are at the center of a new field of science called *regenerative medicine*.

Because stem cells can become neurons, bone, muscle, cartilage and other specialized types of cells, they have the potential to treat many diseases, including Parkinson’s, Alzheimer’s, Diabetes and more.

4. What is stem cell therapy and how does it work?
Since we have hundreds of patients with successful results we have been able to identify patterns of where stem cells make NEW cells. This is one of our advantages in helping you! We use the most optimal stem cells for each patient. Usually we strive for pluri-potential cells because these stem cells can differentiate into whatever your body needs. We strive to create the most powerful stem solution. Most powerful means we determine not only the number of stem cells but also the percent that are alive and the percent purity for each type of stem cell.

Our office currently offers 5 types of stem cells – more than any other office so that we are not limited in creating the best solution for you. Some stem cells are best for muscles, others are better for brain cells still others are better for internal organs. Therefore we have the ability to determine and use the best stem cell solution for you!

Your own Adult Stem Cells or Tissue-specific Stem Cells harvest from:

   a. Blood,
   b. Adipose or fat
   c. Bone marrow
   d. Induced Pluri-potent Stem Cells from your own cells via an affiliated laboratory
   e. Amniotic stem cells from purified Placental tissue

5. What are amniotic Stem Cells?

Amniotic Stem Cells are obtained from healthy donors who have volunteered to donate their amniotic fluid after undergoing elective Caesarian delivery. Each donor submits their past medical history and social history for review. The donated tissue is collected aseptically, tested multiple times, and then it undergoes gamma sterilization. This membrane and fluid is rich with the basic components necessary for tissue regeneration.

6. How long would it take to see improvement?
This is one of the most common and important questions a patient can ask. Keep in mind that every patient who receives any type of medical procedure will react differently to their treatment. Patients who have received stem cell therapy through RMG generally see the full culmination or their results from almost immediately to a few months later. Some patients have taken up to 6 months before seeing the full effect of the treatment.

7. **How long does the stem cell treatment through RMG take?**

A patient’s visit for stem cell treatment lasts for only 3 days. The first day will be a new patient orientation followed by a consultation with the treating physician and often a preparation IV. The very next morning the patients will begin their stem cell treatment which will last roughly 2 hours. They will return to the center on the third day for a post-op consultation and an additional IV before returning home.

8. **Will I need to return regularly for follow-ups?**

Patients will only need to visit RMG once for their treatment. Once their treatment has completed, patients will return home where the RMG staff will follow-up with them for our studies on a regular basis. Because the visit lasts only 3 days, patients travel to RMG from all over the world to receive the highest level of stem cell therapy available. Very rarely patients need to come back for additional treatment steps.

RMG offers a complete travel service for patients and caregivers that includes air & ground transportation, Shuttle service and Hotel services.

9. **Am I a candidate for stem cell therapy through RMG?**

RMG follows a strict protocol to determine whether each and every patient is a good candidate for stem cell therapy. Every patient will undergo a full medical history evaluation to determine their candidacy before being approved for treatment.

To determine if you, or your loved one, may qualify for RMG Stem Cell Therapy, it is
necessary to ask some medical questions.

If your answers show that you or your loved one may be a candidate for this treatment, your information will be forwarded to our physician team so they can contact you.

Here is the link to our chronic kidney disease questionnaire:

www.StemCell.Life/ckd-questionnaire

To learn more about becoming a patient and receiving stem cell therapy through RMG, please contact us at (949) 346-2355 or send us an Email at info@stemcell.life.

10. How much does stem cell treatment through RMG cost?

The cost of each treatment depends on each individual case. In order to learn more regarding the cost for treatment, please contact us by calling (949) 346-2355.

11. Could a stem cell therapy be repeated?

Yes, a stem cell therapy may be repeated. Current studies indicate the strong possibility of a cumulative effect from multiple stem cell therapies a patient received for their condition. Long-term studies will attempt to better understand this in detail.

12. Could a stem cell therapy be used at the same time as other therapies?

Yes it can. We often use objective measures to determine the efficacy of Stem Cell therapy.

We will evaluate your current medication and therapies to make sure, you receive the best results.

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News and Information
American Kidney Fund – Chronic Kidney Disease
Centers for Disease Control and Prevention – Chronic Disease Control
Mayo Clinic – Kidney Disease
National Center for Chronic Disease Prevention and Health Promotion
National Kidney Foundation
Renal & Urology News - CKD
The Renal Association – CKD Stages
U.S. National Library of Medicine – Chronic Kidney Disease

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