



Cell & Co



Mesenchymal Stem Cells (MSC Premium)

What is MSC?

MSC stands for Mesenchymal Stem Cell, a distinctive category of human cells renowned for their "multipotency." These cells exhibit remarkable capabilities in addressing degenerative diseases, as they have the ability to release factors that facilitate the regeneration and specialization of various tissues within the body. MSCs can differentiate into diverse specialized cell types, including bone, muscle, and cartilage. Furthermore, they are recognized for their capacity to diminish inflammation, promote cell regeneration, and regulate the immune system.



Benefits of MSC?

MSCs open the door to a more personalized approach to medicine, tailoring therapies to the unique medical profiles and needs of individual patients. This allows for a more specific and targeted treatment strategy, emphasizing the potential for customized healthcare solutions based on the distinctive characteristics of each patient.

The use of MSCs is known to have the following benefits:

1. Slowing down the aging process.
2. Rejuvenating the skin, protecting and restoring damages.
3. Improving skin elasticity.
4. Improving metabolism, stamina, and overall energy level.
5. Reducing scars and skin indentations.
6. Enhancing wound healing.
7. Improving eyesight.
8. Increasing core body temperature.
9. Enhancing libido.
10. Assisting in Arthritis.
11. Helps to reduce risk of diseases such as:
 - a. Alzheimer's
 - b. Diabetes
 - c. Heart diseases
 - d. Immune disorder
 - e. Fatty Liver
 - f. Parkinson's
 - g. Stroke

HEALTHY AGING

MSCs play a pivotal role in growth, wound healing, and daily cell replacement. However, as the body naturally ages, its capacity to generate an ample supply of replacement MSCs declines. Consequently, MSC therapy becomes a method by which individuals can replenish the diminished MSCs in their bodies, aiming to restore and enhance the regenerative processes associated with growth, wound healing, and cellular replacement.

THERAPY PROTOCOL

This therapeutic process is conducted by a meticulously selected team of certified doctors, specialists, and medical centers. Before the therapy, it is strongly advised to undergo a pre-therapy medical screening and consultation with a qualified medical doctor to confirm suitability for the treatment. This screening involves a comprehensive medical check-up and blood test.

Once suitability is established, the medical doctors will organize a personalized cell therapy session. The safest and most straightforward method of administering stem cells is intravenous delivery. Besides the initial mild discomfort at the injection site, patients typically do not experience any other discomfort.

Depending on the individual's condition, stem cell administration may occur in a single session or be distributed across three sessions. This approach is designed to optimize the therapeutic impact of MSCs and ensure the delivery of maximum benefits.



One World Class Good Manufacturing Practice (cGMP) Laboratory

Our MSCs are cultured from an advanced laboratory, managed by a team of extensively skilled and trained laboratory scientists. It stands as one of the limited facilities in Malaysia holding the prestigious cGMP (PIC/S) certification bestowed by NPRA (BPFK), a division of the Malaysian Ministry of Health. This certification attests to the commitment to maintaining high-quality standards in pharmaceutical manufacturing.

This laboratory is certified for adherence to the guidelines outlined in ISO 14644-1:2015(E) and the National Environmental Balancing Bureau (NEBB). This dual certification underscores the dedication to meeting stringent international and national standards, ensuring the precision and reliability of the laboratory processes.

Production Workflow

Within this Good Manufacturing Practice (cGMP) Laboratory, the umbilical cord, once collected, undergoes a meticulous process involving cleaning, preparation, and cellular dissociation to extract MSCs.

Subsequently, these isolated MSCs undergo an expansion process, increasing their numbers to the specified quantity within a Cleanroom, Class A environment. Leveraging comprehensive research and hands-on experience, a specific expansion is meticulously designed to yield optimal results upon introduction into the human body. This approach ensures that the MSCs reach a stage where their therapeutic potential is maximized for the best outcomes.

SAFETY

Quality Control and Assurance System

To guarantee that our MSCs meet the highest standards of quality and are processed with the utmost safety, a rigorous multi-level quality assurance protocol is implemented. This protocol encompasses a series of tests, including immunophenotyping, endotoxin testing, sterility assessments, and others, at various stages of the cell culturing process.

To ensure the accuracy and precision of these tests, collaboration with external independent test laboratories is conducted. This external verification process serves to confirm the reliability and validity of the results, reinforcing the commitment to delivering MSCs of the highest quality and adhering to stringent safety measures.

FREQUENTLY ASKED QUESTIONS

Where do you get your MSC from?

To guarantee the superior quality of our mesenchymal stem cells (MSCs), we extract them from the Wharton's Jelly found in the umbilical cord. This source is recognized as one of the youngest and most potent reservoirs of MSCs obtainable from the human body. This strategic selection aligns with our commitment to harnessing the most efficacious and promising cellular material for our therapeutic applications.

How long will the effect last?

The efficacy of MSC therapy depends on the overall health and condition of the individual. Typically, the estimated effectiveness of MSC therapy ranges from 8 months to as long as 24 months. The duration of effectiveness may vary based on individual health factors, highlighting the personalized nature of the therapeutic outcomes.

How safe is MSC and what are the side effects?

It's important to note that MSCs exhibit very low immunogenicity, and as a result, there are no known serious side effects associated with their infusion. In exceedingly rare cases, minor rashes have been reported, underscoring the overall safety profile of MSC therapy.

How fast is the result?

Positive effects from MSC infusion can be observed as early as within the initial 24 hours to a few weeks following the procedure. This rapid onset of potential benefits underscores the dynamic and prompt impact that MSC therapy may have on the individual's health and well-being.

Does MSC cause cancer?

MSCs are not associated with the development of cancer. Any concerns about stem cells causing cancer are likely related to stories involving embryonic stem cells, not MSCs. The use of embryonic stem cells, in rare instances, has been linked to the formation of tumors known as teratomas. It's important to clarify that MSCs, being distinct from embryonic stem cells, do not pose the same risk of teratoma formation and are considered safe for therapeutic applications.

Who is not suitable for the MSC therapy?

The ultimate decision regarding the suitability of MSC therapy lies with the medical professional. Generally, MSC therapy is not recommended for individuals who are pregnant or those with infectious diseases or cancer. These precautionary guidelines emphasize the importance of thorough medical assessment and consultation with a qualified healthcare provider to ensure the appropriateness of MSC therapy for each individual case.

How do I ascertain the quality of the MSC?

Our MSCs undergo a meticulous quality control procedure that includes rigorous testing of purity. This stringent quality control process is implemented to guarantee that all our products meet the highest standards of excellence, ensuring the purity and quality of our MSCs.



+6012 877 2669 +603 7499 2289/ 2282 @care@celln.co www.celln.co

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