



For Questions, please contact:

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Stem Cell Treatment Program Patient Handout

Live Stem Cell Treatment

Stem cells have been used to treat patients around the world for over twenty years. For much of this time the use of stem cell has been controversial, primarily because of the use of embryonic stem cells in early trials. Presently stem cells can be collected from many sources including adult fat tissue, adult bone marrow and adult peripheral blood. However, these cells are less active and harvesting is complicated. The most effective and commonly used stem cells come from the umbilical cord blood (and placenta) of healthy newborns. These are called mesenchymal stem cells. Stem cell treatment remains experimental and investigational. The FDA has not yet cleared these treatments for human use and every human treatment remains risky because too many unknowns remain.

Stem cells promote the growth of healthy tissues and the repair of damaged tissues and organs. Stem cells can be injected into joints, spinal discs and even ventricles of the brain. They also may be infused through an IV. The efficacy of stem cell treatment heavily depends on the quality of stem cells infused. The process of stem cell harvesting, testing and purification is highly regulated.

Currently stem cells are being used to treat immune disorders such as rheumatoid arthritis, lupus, multiple sclerosis, Crohn's disease and others; inflammatory disorders such as osteoarthritis and soft tissue and wounds repair; peripheral vascular disease and COPD; neural disorders and spinal cord injury; Parkinson's disease and stroke; endocrine disorders and infectious diseases, including chronic Lyme disease and many other conditions. Not only do stem cells themselves work, but they also secrete growth factors and immune regulators which can reportedly penetrate the blood-brain barrier to help conditions like headaches, PTSD, bi-polar, schizophrenia, depression and even addictions.

Some fear that stem cells may cause cancer. But quite the contrary, researchers have shown that mesenchymal stem cells actually treat cancer. Stem cells, when introduced into the body, sense chemical signals of tissue damage and migrate to the affected area. There they stimulate growth and repair. Stem cells powerfully regulate the immune system and allow the body to battle cancer and other conditions that involve the immune system.

Stem cells are less effective at restoring tissue that is completely gone, such as end stage arthritis where almost all cartilage is missing or childhood onset diabetes (Type 1) when no insulin producing cells are found.

The side effects associated with stem cell treatment come primarily from the way they are injected and infused. All invasive procedures have well known risks such as inflammation, organ damage by a needle and others. Nonspecific side effects such as flu-like symptoms and nausea are more common.

If you have questions about the use of stem cell treatment for your condition, please ask your doctor. The treatment is *expensive* and *experimental*; you need to put great effort into being informed before making a decision to have stem cell treatment.