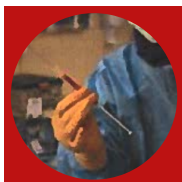
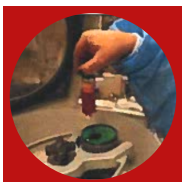




Weill Cornell Medicine

INJECTION OF BONE MARROW DERIVED MESENCHYMAL STEM CELLS IN PATIENTS WITH DEGENERATIVE DISC DISEASE



BACKGROUND

You are scheduled for a lumbar discectomy, which is a very successful and well-established operation. However, the disc herniation is only one reason why you are experiencing back pain. Another reason is the underlying disc degeneration. To address this problem and prevent further degeneration with more back pain, there is a novel, experimental therapy. Recent studies showed that the injection of stem cells may enhance the recovery of the degenerated disc.

MESENCHYMAL STEM CELLS

Mesenchymal stem cells (MSCs) have the ability to transform into different types of connective tissue such as the one found in intervertebral discs. A large amount of these cells can be found in the so-called stroma of the bone marrow. Once in touch with the intervertebral disc tissue, the MSCs will receive a signal to transform into disc tissue.

STUDY EVENTS

01

Before your surgery, the study team will collect your consent to participate. You will also be asked to complete a MRI and a pre-operative questionnaire.

02

During your surgery, we will harvest a small amount of bone marrow from your iliac crest under general anesthesia. Then, while the discectomy is performed, the harvested tissue is centrifuged to extract the MSC-rich stroma. After the discectomy procedure, the cells will be injected into the disc.

03

After your surgery, the study team will follow up with you three times: 3-months, 6-months, and 12-months postoperatively. We will ask you to answer the same questionnaire all three times, and to complete a MRI at 3 months and 12 months. Please make sure you are able to travel to NYC for the MRI appointments.



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