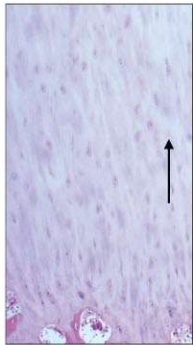


Stem Cells

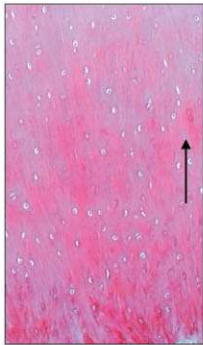
In adults, stem cells act as a repair system for the body. They allow replacement of ageing and damaged cells in organs.

In adults, damaged tissue is usually replaced with scar tissue which loses most of its original function. Stem cell therapy has the potential to restore the original structure and function of the damaged tissue.

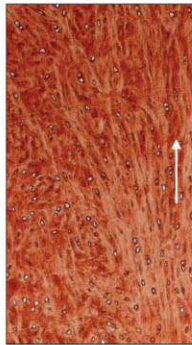
Researchers believe that stem cell therapy could dramatically improve medical treatment, especially in the field of regenerative medicine.



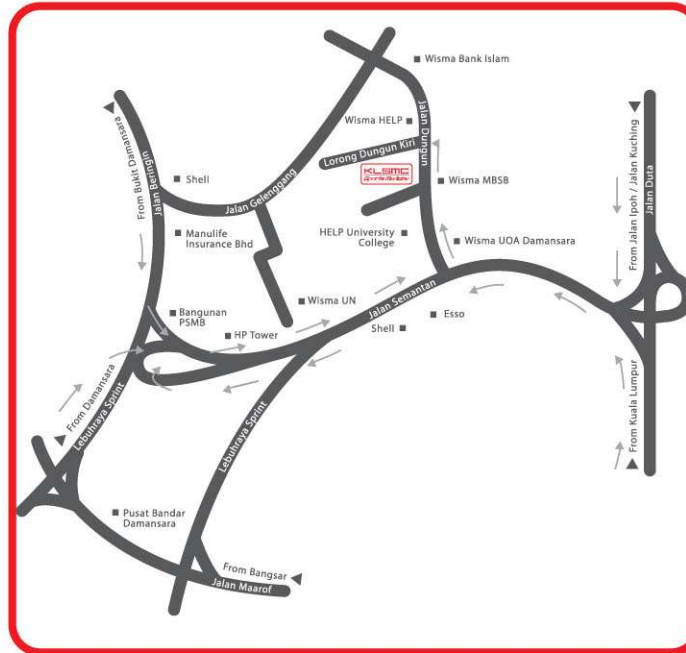
H&E



Safranin-O



Collagen II



P Parking is available in the basement

Location Map

KUALA LUMPUR SPORTS MEDICINE CENTRE
 7th Floor, Wisma Perintis,
 47 Jalan Dungun, Damansara Heights,
 50490 Kuala Lumpur, Malaysia.
 Tel: +603 2096 1033
 Fax: +603 2096 1500

Stem Cell Enquiry: +603 2089 5239

E-mail: enquiry@klsmc.com
 Website: www.klsmc.com

Outpatient Clinic Hours
 Monday to Friday (9am to 5pm)
 Saturday (9am to 1pm)



INFORMATION FOR PATIENTS



Kuala Lumpur Sports Medicine Centre



Peripheral blood stem cell harvest

This leaflet explains what is involved in a peripheral blood stem cell harvest. It explains what happens before the harvest takes place and how cells are collected during the harvest. It is a non-surgical procedure involving separation and collection of stem cells from the peripheral circulating blood.

What are stem cells?

Stem cells are the source of all cells in the body, and are formed in the bone marrow. To prepare for harvesting, these stem cells will be prompted to move into the bloodstream using a hormone called G-CSF.

What is G-CSF?

G-CSF is a hormone produced by the body and is involved in two major functions: to help bone marrow stem cells enter the bloodstream and to create replacement stem cells in the bone marrow.

Most people will require 2-4 daily injections of G-CSF to ensure enough stem cells enter the bloodstream for harvesting. These injections are usually given just under the skin of the abdomen.

Side effects are generally minimal and may include a rash, bone aches, and occasionally redness and discomfort at the site of injection.

Rarely, coughing, fever or shortness of breath may happen. If these side effects occur, you should contact your doctor immediately.

How is stem cell harvesting done?

Early in the morning before the planned peripheral blood stem cell harvest, a blood test will be taken to check that the number of stem cells is adequate for harvesting.

To enable harvesting, an apheresis catheter will be inserted into a large vein at the top of the thigh. It will be inserted by an experienced doctor under a local anaesthetic to minimize discomfort from the procedure. The catheter allows blood to be passed through a cell separator which filters out stem cells and returns the processed blood to the body. A qualified personnel will operate the separator machine and will monitor you at all times. Once harvesting is complete, the apheresis catheter will be removed.

What are the potential risks and side effects?

Some people may feel light-headed during harvesting, particularly at the start of the procedure. This can be improved by lying down in bed and slowing down the rate of blood flow through the cell separator. Anti-coagulant is given to stop blood clotting in the cell separator.

A disposable kit is used for harvest, and there is no risk of infection from blood-contaminated tubing or equipment.



How long does the procedure take?

The length of time for the procedure averages between 2 to 4 hours but varies from patient to patient (please check with staff during explanation of procedure). You can eat or drink during procedure. Patient will given a light meal upon completion of procedure.

What to do on the day of harvesting?

Patients are advised to eat breakfast at home as no fasting is required. Do remember to take the calcium tablets which will be provided on the last day of injection. Patients are also required to take other medication if any, prescribed by doctors.

Protocol by KLSMC does not allow visitors during the procedure. If patient is accompanied by friends or relatives, they are advised to wait at the waiting area till the procedure is completed.

What happens to the stem cells?

Once harvested, the stem cells can be used immediately for treatment or frozen for later use.

If you have any questions about peripheral blood stem cell harvesting, please ask your doctor or nurse.