

Surgical Preparation and Protocol for NuCel

Maintain the product at -80° C or colder until immediately prior to use.



Place the NuCel vial in the pre-prepared room temperature normal sterile saline solution maintained between 34° and 37° C. If possible, do not completely thaw the contents in the vial. Only thaw the vial for 20-30 seconds so that contents in the vial come out as a frozen plug.



Using aseptic technique, carefully empty the NuCel vial into a sterile basin and add an appropriate amount of saline. Allow the frozen plug to finish the thawing process in the saline until all the material is in a liquid state. (For the .5cc vial add up to 1.5cc of saline, PRP, patient's blood, etc. for a total of 2.0cc. The 2.0cc of liquid is then mixed with up to 2.0cc of carrier material for an effective volume of 4.0cc. The 1.25 size has an effective volume of 8.5cc.)



Mix the .5cc of NuCel with 1.5cc of saline (patient's blood can also be used) for a total of 2.0cc. The 2.0cc of liquid is then mixed with up to 2cc of carrier material for an effective volume of 4cc. (Picture shows the clear NuCel and saline mix to the left and bone chips to the right.)



The product does not come with its own carrier. Therefore the advantage is that any number of carriers can be used with it. (Picture shows application of the NuCel – cancellous bone chip carrier delivery into the bone void areas.)

NuCel is human amniotic allograft product derived from amniotic fluid and is comprised of up to 250,000 living mesenchymal stem cells and morsalized mesenchymal stem cells. Amniotic tissues have a long 92 year informal therapeutic history including over 90 white papers. Amniotic tissues are immune privileged which means it can be used in any body, because it does not express M H C Class II antigens. Surgeons use amniotic materials to reduce inflammation and prevent scarring.

Also, NuCel is composed of five types of collagen and fibronectin. The five types of collagen are:

- Epithelium layer
- Basement membrane – Collagen types III, IV,V, Laminin, Fibronectin, Nidogen
- Compact layer – Collagen types I, III, V, VI, Fibronectin
- Fibroblast layer – Collagen types I, III, IV, Laminin, Fibronectin
- Intermediate (Spongy) layer – Collagen types I, III, IV, Proteoglycans

It lacks Class II Antigens. Extensive donor testing is performed to ensure quality product.

NuCel comes frozen in a vial with a locked cap. It is intended for use as an in vivo wound covering.

NuCel is intended for single patient, one time use only. Once opened, the NuCel allograft must be used immediately or discarded.

For further information call Activize Inc. at (610) 346-1992.