

Arthroscopic Autologous Chondrocyte Implantation

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Autologous chondrocyte implantation (ACI) has evolved over the past 30 years. The main advancement that occurred during the evolution from first-generation ACI to third-generation ACI was the invasiveness of implantation surgery. Implantation surgery in first-generation ACI necessitated an open arthrotomy and dislocation of the patella. This video introduces costal chondrocyte-derived pellet-type ACI. This product is made from a patient's costal cartilage cells. The cells are proliferated through cell culture and then differentiated into small, hyaline cartilage-like tissue via chondrogenic pellet culture. The most important advantage of costal chondrocyte-derived pellet-type ACI is that implantation can be performed via arthroscopy and size and shape are not limited.