December 25, 2023
Japan Tissue Engineering Co., Ltd.

# Regenerative Medicine for the Knee using Autologous Cultured Cartilage: Application all over Japan – a track record of usage in all 47 prefectures

In regards to autologous cultured cartilage, (brand name: “JACC”), a product of regenerative medicine for the purpose of treating knee cartilage, Japan Tissue Engineering Co., Ltd. (J-TEC) has so far provided products for the treatment of more than 1,600 patients. Presently, as of December 2023, autologous cultured cartilage has a track record of usage in all of Japan’s 47 prefectures, becoming common practice in regenerative medicine treatment of the knee.

Autologous Cultured Cartilage

Autologous cultured cartilage is a product which makes use of the patient’s own cartilage tissue, mixing it with atelocollagen gel and cultivating a three-dimensional shape, which is transplanted at the site of cartilage loss in the patient’s knee. J-TEC obtained marketing approval in July 2012 to treat traumatic cartilage defects and osteochondritis dissecans (excluding osteoarthritis) in the knee joint, and since April 2013, public health insurance covers the cost of the treatment.

## Abundant achievements and confirmed effectiveness and safety

In order to confirm the effectiveness and safety of autologous cultured cartilage, J-TEC conducted a post marketing surveillance, covering all cases in which this product was used over the span of a 7-year re-examination*1 period. After it was released to the market, it was used by doctors at many medical institutions, the surveillance results were compiled and submitted to the Ministry of Health, Labour and Welfare, and the approval further confirmed the effectiveness and safety.

Currently, more than 360 medical institutions across the country meet the facility requirements and provide treatment with autologous cultured cartilage, and its outstanding results distinguish it among regenerative medical products approved in Japan.

Additionally, an important thesis on autologous cultured cartilage*2 has been published by Professor Yuji Uchio and colleagues at the Department of Orthopedic Surgery, Medical Faculty of Shimane University.

## Towards expanding the indication for osteoarthritis

J-TEC is currently conducting clinical trials with the aim of expanding the indication for knee osteoarthritis, and we have already carried out treatment and follow-up observation of all cases. We will continue to work towards making autologous cultured cartilage an option for more patients, including patients with knee osteoarthritis.

*1 A system in which, after a certain period of time has passed since approval, a company collects data from actual use at medical institutions and undergoes a re-examination regarding the recognized benefits, effect or performance, and safety. As a result of the re-examination, one of the following measures is taken: “revocation of approval,” “deletion or modification of indications,” or “no particular measures”.

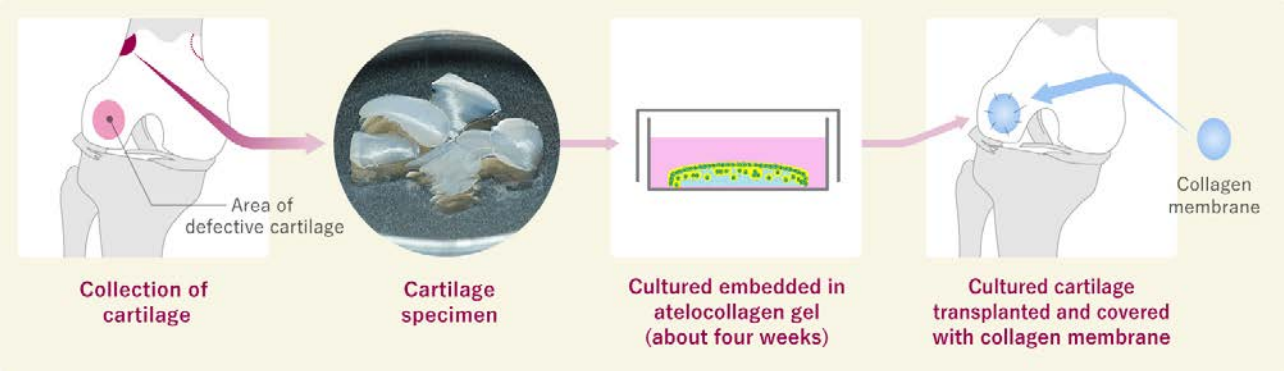
*2 A Single Case Study Comparing High Tibial Osteotomy With Matrix-Associated Autologous Chondrocyte Implantation With Medial Collateral Ligament Release Treating Bilateral Severe Medial Knee Osteoarthritis
https://pubmed.ncbi.nlm.nih.gov/37976387/

**About autologous cultured cartilage**

Autologous cultured cartilage (brand name: “JACC”), based on technology developed by Professor Mitsuo Ochi (currently President of Hiroshima University) during his research at Shimane Medical University, is Japan’s first regenerative medical product in the field of orthopedics.

In 2019, aiming to further reduce the invasiveness in regards to the patient’s body in treatment with autologous cultured cartilage, we introduced the method of using an artificial collagen membrane instead of the periosteum harvested from the patient’s tibia for transplantation. This reduced the physical burden on patients, as well as simplifying the transplanting procedure for doctors.

**Transplantation of autologous cultured cartilage (knee-joint)**




**(Reference: About J-TEC)**

J-TEC (TSE: 7774) is a maker of regenerative medical products whose corporate vision is “creating a future for regenerative medicine,” and has been a member of the Teijin Group since March 2021. As Japan’s top runner in regenerative medicine, J-TEC obtained marketing approval for autologous cultured epidermis “JACE”, Japan’s first regenerative medical product, in October of 2007, and began marketing the product in January of 2009. J-TEC then went on to obtain marketing approval for Autologous Cultured Cartilage “JACC” in July of 2012, for Autologous Cultured Corneal Epithelium “Nepic” in March of 2020, and for Autologous Cultured Oral Mucosal Epithelium “Ocural” in June 2021, and for Autologous Cultured Epidermis Maintaining Melanocytes “JACEMIN” in March 2023. Of the 19 regenerative medical products that have been approved in Japan, five are J-TEC products. By making the most of the experience and knowhow cultivated through these achievements, J-TEC is engaging in contract development of regenerative medical products, consulting, and contract manufacture of specific cell-processed products.
Please visit www.jpte.co.jp/en/

**[Contact information for inquiries about this announcement]**
Japan Tissue Engineering Co., Ltd.
E-mail jtec-info@jpte.co.jp