

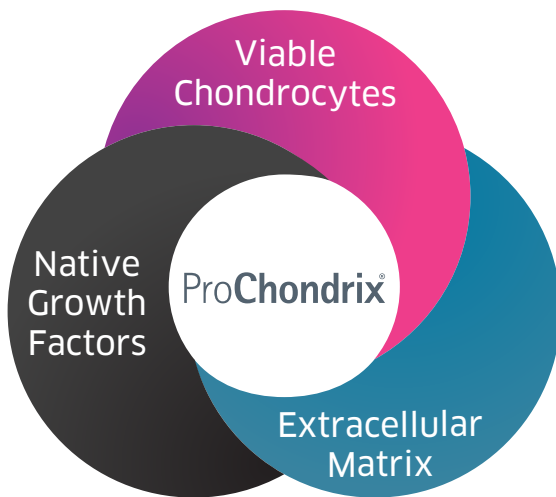
# ProChondrix<sup>®</sup> CR

CRYOPRESERVED FRESH OSTEOCHONDRAL ALLOGRAFT

Natural Choice for Cartilage Replacement

## RESTORING MOVEMENT

## RETURN TO AN ACTIVE LIFESTYLE



### PROCHONDRIX<sup>®</sup> CR IS A SINGLE-STAGE, NATURAL SOLUTION FOR PATIENTS IN NEED OF ARTICULAR CARTILAGE REPAIR

ProChondrix CR, a laser-etched, cryopreserved fresh osteochondral allograft, helps deliver the necessary components for articular cartilage restoration. This next generation of cartilage restoration therapy provides the live functional cells and other biological components necessary for repair and regeneration of damaged cartilage tissues.<sup>1</sup>

- > The extracellular matrix helps support a structure for cellular migration and adhesion while preserving native growth factors.<sup>1</sup>
- > Presence of native growth factors help maintain healthy cartilage and facilitate chondrocyte functionality.<sup>1</sup>
- > Viable chondrocytes are present and can aid in cartilage repair by generating extracellular matrix proteins that help promote chondrogenesis.<sup>1</sup>

### PROCHONDRIX<sup>®</sup> CR DELIVERS HIGH CHONDROCYTE VIABILITY WITH IMPROVED SHELF LIFE

The presence of viable cells (chondrocytes) is important for the regeneration of cartilage. A high and consistent viability of chondrocytes in allografts ( $\geq 70\%$ ) is needed to ensure a good clinical outcome.<sup>2</sup>

The cellular viability testing of ProChondrix CR after explant culture by fluorescence microscopy and Trypan blue staining for cellular viability showed an average of 88.8 percent (range 77.5 to 95).<sup>3</sup>

Published data on another cryopreserved chondral allograft (Product X) using fluorescent staining reported an average 70.5 percent viability (range 54.5 to 88.5).<sup>4</sup> Results are summarized in Table 1.

Table 1: Viabilities of Cells for ProChondrix CR and Product X

	ProChondrix CR Trypan Blue n=6 <sup>3</sup>	Product X Fluorescent Cell Counting <sup>4</sup>
% Viability Average	88.8	70.5
% Range of Viability	77.5 - 95	54.5 - 88.5

## SIZING INFORMATION

### ProChondrix® CR

PRODUCT CODE*	DIAMETER
735479010	9 mm
735471110	11 mm
735471310	13 mm
735471510	15 mm
735471710	17 mm
735472010	20 mm

\*1 mm thickness

### > Shelf Life

6 months

### > Storage Information

Store at or below -40°C

### > Thawing Instructions

1. Place vial in warm or room temperature sterile saline to thaw cryoprotectant medium (approximately 5 minutes for warm or 10 minutes for room temp).
2. Remove the graft from the vial and rinse with sterile saline to remove remaining cryoprotectant medium.
3. Keep graft in sterile saline until ready to implant.



AlloSource strives to deliver affordable, effective allografts for use in spine, sports medicine, foot and ankle, orthopedic, reconstructive, trauma and wound care procedures. We develop innovations that honor donors and progress healing by bridging the proven science of tissue allografts with advanced cellular technologies.

1. Delaney, R, Barrett, C, Stevens, P. AlloSource, Centennial, CO. ProChondrix® Cartilage Restoration Matrix Contains Growth Factors Necessary for Hyaline Cartilage Regeneration.
2. Cook JL, Stannard JP, Stoker AM, Bozynski CC, Kuroki K, Cook CR, Pfeiffer FM. Importance of Donor Chondrocyte Viability for Osteochondral Allografts. *Am J Sports Med.* 2016 May;44(5):1260-8.
3. Nelson AL, Barrett C, Sakthivel R. AlloSource, Centennial, CO. Cryopreserved Osteochondral Allograft, ProChondrix® CR Maintains Metabolically Active and Viable Cells.
4. Geraghty S, Kuang J, Yoo D, et al. A novel, cryopreserved, viable osteochondral allograft designed to augment marrow stimulation for articular cartilage repair. *Journal of Orthopaedic Surgery and Research.* 2015;20-66.



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**WHAT SHOULD I EXPECT BEFORE, DURING AND AFTER A PROCHONDRIX CR PROCEDURE?**

Before the procedure, your physician will provide you with medication to minimize any potential pain. During the procedure, your surgeon will initially remove your damaged cartilage, followed by placing **ProChondrix CR** into the affected area. After your surgery, rehabilitation will be prescribed based on the size and location of your cartilage injury.

**WHAT ARE THE POTENTIAL RISKS OR SIDE EFFECTS OF A PROCHONDRIX CR PROCEDURE?**

Cartilage replacement surgery is a relatively safe procedure. The surgery is performed in an operating room located in either a hospital or a surgery center. In most cases, you will not need to stay overnight. General surgery risks should be discussed with your physician.

This brochure is designed to provide an overview of cartilage issues and treatments specific to **ProChondrix CR**. If you have additional questions, speak with your physician as they will determine the type of treatment that is appropriate for you.



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A PATIENT'S GUIDE TO  
TREATING **CARTILAGE**  
INJURIES WITH  
**ProChondrix® CR**



## WHAT IS ARTICULAR CARTILAGE?

Articular cartilage is a durable tissue that serves as a protective layer that covers the surface of bones within each joint. It allows the bones to glide over each other with very little resistance. Cartilage also serves as a shock absorber in the joint.

## HOW CAN ARTICULAR CARTILAGE BE DAMAGED?

Articular cartilage can be damaged by:

- A traumatic injury (including sports, accidents, sprains and strains)
- Repetitive overuse
- A condition that gets worse over time (also called a degenerative condition)

## WHAT HAPPENS WHEN CARTILAGE IS DAMAGED AND HOW IS IT TREATED?

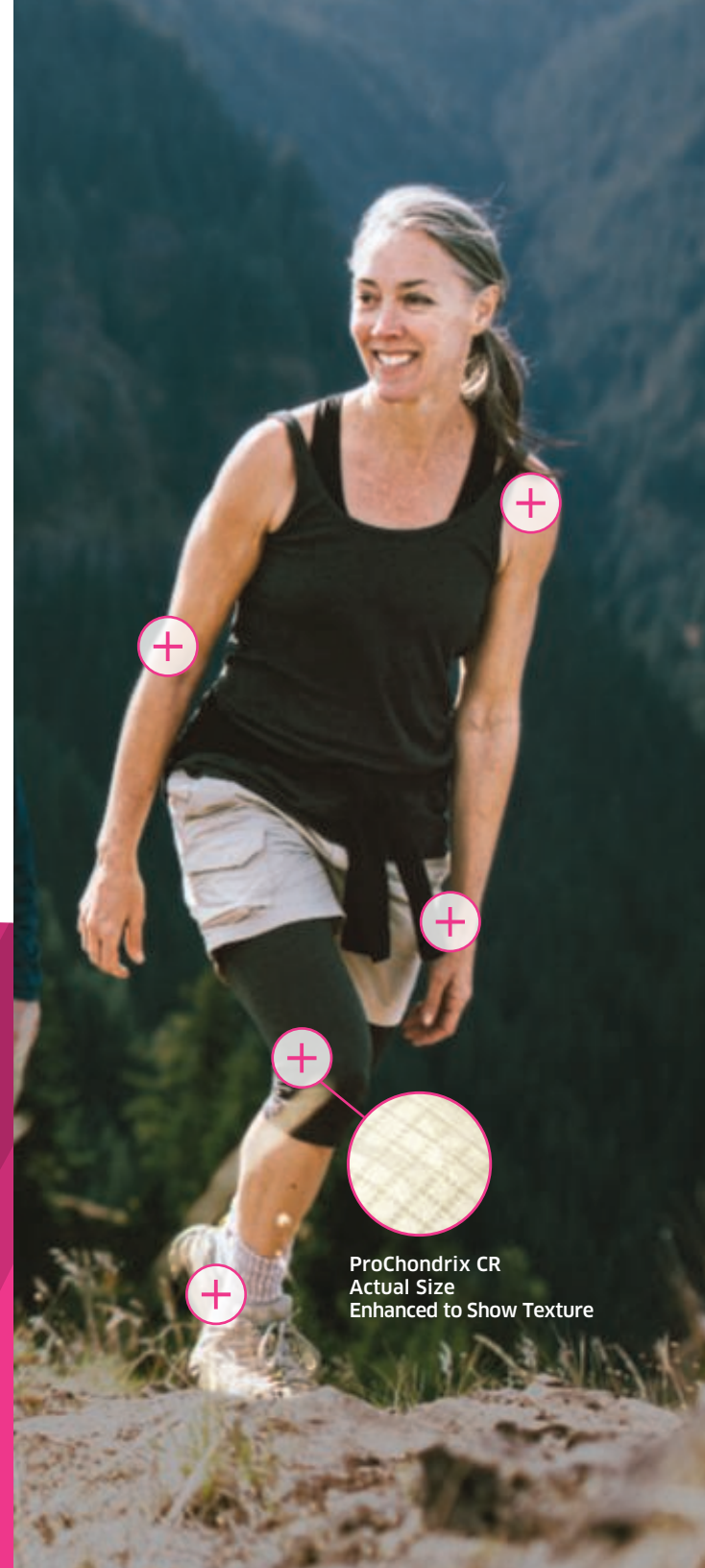
If your cartilage is damaged or worn, your joint's surface may no longer be smooth, making it difficult for your bones to move along a joint's surface. This can result in pain, swelling and stiffness.

The first step is to talk to your physician. He/She may recommend non-surgical treatments such as extended rest, bracing, rehabilitation, and/or medications. If your symptoms are severe, or don't improve with non-surgical treatments, your physician may further diagnose your condition by prescribing a variety of tests such as X-rays or magnetic resonance imaging (MRI). He/She may then recommend surgical options such as:

- 1 Making small holes in the bone to encourage growth of new cartilage; you may hear terms such as marrow stimulation or microfracture
- 2 Replacing the damaged cartilage with your own cartilage, which is called an autograft
- 3 Replacing the damaged cartilage with donated living cartilage, which is called an allograft, like **ProChondrix CR**

# + What is ProChondrix CR and how does it treat cartilage injuries?

**ProChondrix CR** is a product used to repair or replace your damaged cartilage. Repairing cartilage may help relieve your pain symptoms and improve the function of your affected joint. **ProChondrix CR** is a therapy that uses living cartilage prepared from a deceased tissue donor (called an allograft). The donor and the tissue used to produce ProChondrix CR are extensively tested to ensure that it is safe.



ProChondrix CR  
Actual Size  
Enhanced to Show Texture