

**stryker**



# Sports medicine

Product offerings



# About AlloSource and Stryker's relationship

## Who we are and **what we do.**

Stryker and AlloSource collaborate to provide high quality, innovative allogeneic cells and tissue products for use in sports medicine procedures. This collaboration is driven by the companies' combined commitment to better serve their customers, help patients in need and fully honor the gift of tissue donation.

AlloSource is a world leader in processing of cell-based biologics and cartilage tissue for joint repair.

### • 5 different types of non-bone tendons in various lengths/thicknesses

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <b>Single strand (18-22.9cm length)</b> <ul style="list-style-type: none"> <li>» Semitendinosus</li> <li>» Gracilis</li> <li>» Peroneus longus</li> <li>» Tibialis anterior</li> <li>» Tibialis posterior</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• <b>Double strand (&gt;=23cm length)</b> <ul style="list-style-type: none"> <li>» Semitendinosus</li> <li>» Gracilis</li> <li>» Peroneus longus</li> <li>» Tibialis anterior</li> <li>» Tibialis posterior</li> </ul> </li> </ul> |
|---|---|

### • Fascia lata (iliotibial band)

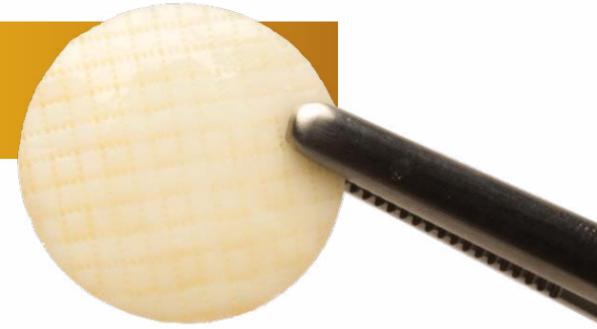
### • Patellar ligament and achilles tendon varieties

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Pre-shaped patellar ligament</li> <li>• Hemi patellar ligament (whole patellar ligament cut directly in half)</li> </ul> | <ul style="list-style-type: none"> <li>• Whole patellar ligament</li> <li>• Pre-shaped achilles tendon</li> <li>• Achilles tendon with calcaneus</li> </ul> |
|---|---|

### • Full soft tissue portfolio is offered in both aseptic and irradiated versions

### • ProChondrix CR—Osteochondral allograft for treatment of superficial cartilage lesions

## ProChondrix<sup>®</sup> CR



ProChondrix CR is a cryopreserved, viable, intact osteochondral allograft consisting of living cells and native growth factors inherent within an extracellular matrix. A proprietary cryopreservation method developed for ProChondrix CR allows for the living osteochondral allograft to have an extended shelf life without compromising cell viability.<sup>1</sup> ProChondrix CR is a single-stage, natural solution for patients in need of articular cartilage repair.<sup>1</sup>

### Integration

- Laser etched on deep side to enhance cell signaling and chondrocyte migration<sup>1</sup>
- Residual boney matrix contains osteoblasts<sup>1</sup>

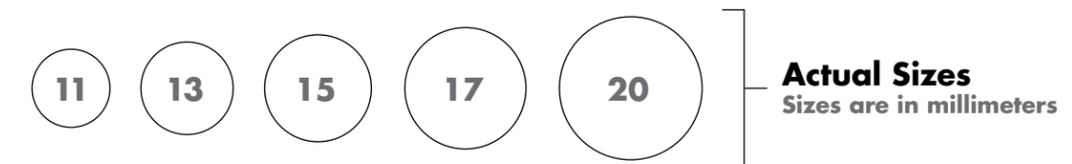
### Cell viability

- Proprietary cryopreservation method maintains original composition of fresh ProChondrix<sup>1</sup>
- Average cell viability count for ProChondrix CR was found to be 94% at two years<sup>1</sup>

### Convenience

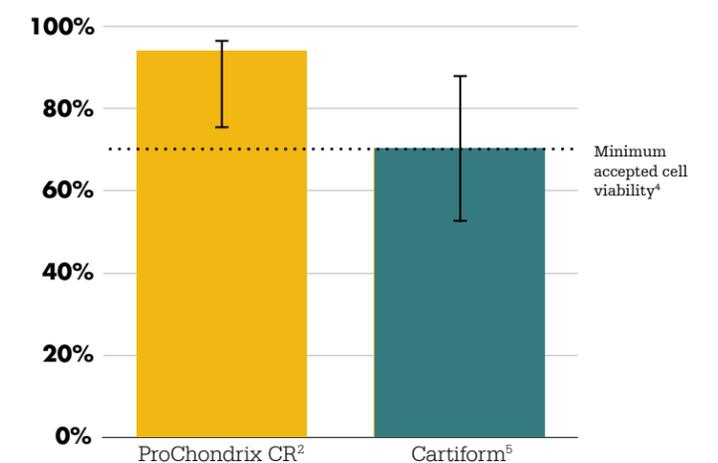
- 2-year shelf life for ProChondrix CR<sup>2</sup>
- Stocking orders available
- Stored at or below -40°C<sup>3</sup>

### Sizing options



## High cell **viability**

The presence of viable cells (chondrocytes) is important for the regeneration of cartilage. A high viability of chondrocytes in allografts ( $\geq 70\%$ ) is generally associated with a higher rate of successful clinical outcomes when compared to grafts with a cell viability of less than 70%.<sup>4</sup>



# AlloTrue<sup>®</sup> technology

AlloSource's AlloTrue technology is a unique, patented cleaning process designed to penetrate deep within donor tissue while still maintaining tissue integrity.<sup>6</sup>

AlloTrue utilizes a combination of treatments of antibiotics, alcohol, peroxide (bone allograft only) and multiple water rinses. The deep penetrating cleaning, with minimal tissue manipulation, results in validated microbial reduction.<sup>6</sup> The AlloTrue system uses motion for complete exposure of the allograft tissues to the cleansing reagents and agitation to facilitate the removal of blood and lipids.<sup>6</sup>



## Tendon offerings



### Tibialis anterior

Part code	Specification	Tendon length	Single diameter	Folded diameter
41522000	Anterior tibialis double strand (frozen, aseptic)	23.5cm min	No Minimum	7.5mm min
41517000	Anterior tibialis double strand (frozen, irradiated)	23.5cm min	No Minimum	7.5mm min
44322000	Anterior tibialis single strand (frozen, aseptic)	18.0–22.9cm	5.0mm min	No Minimum
44317000	Anterior tibialis single strand (frozen, irradiated)	18.0–22.9cm	5.0mm min	No Minimum



### Tibialis posterior

Part code	Specification	Tendon length	Single diameter	Folded diameter
41622000	Posterior tibialis double strand (frozen, aseptic)	25.0cm min	No Minimum	8.0mm min
41617000	Posterior tibialis double strand (frozen, irradiated)	25.0cm min	No Minimum	8.0mm min
44317001	Posterior tibialis single strand (frozen, irradiated)	20.0–22.9cm	4.5mm min	No Minimum



**Gracilis**

Part code	Specification	Tendon length	Single diameter	Folded diameter	Combined diameter
26222000	Gracilis double strand (frozen, aseptic)	24.0cm min	No Minimum	6.0mm min	N/A
26217000	Gracilis double strand (frozen, irradiated)	23.0cm min	No Minimum	6.0mm min	N/A
44322002	Gracilis single strand (frozen, aseptic)	18.5–22.9cm	3.0mm min	No Minimum	N/A
44317002	Gracilis single strand (frozen, irradiated)	18.5–22.9cm	3.5mm min	No Minimum	N/A
44222002	Gracilis/semitendinosus double bundle (frozen, aseptic)	23.0cm min	N/A	4.0mm min	7.5mm min
44217002	Gracilis/semitendinosus double bundle (frozen, irradiated)	23.0cm min	N/A	4.0mm min	7.5mm min



**Semitendinosus**

Part code	Specification	Tendon length	Single diameter	Folded diameter	Combined diameter
18722000	Semitendinosus double strand (frozen, aseptic)	23.0cm min	No Minimum	6.0mm min	N/A
18717000	Semitendinosus double strand (frozen, irradiated)	23.0cm min	No Minimum	6.0mm min	N/A
44322003	Semitendinosus single strand (frozen, aseptic)	18.0–22.9cm	3.5mm min	No Minimum	N/A
44317003	Semitendinosus single strand (frozen, irradiated)	18.5–22.9cm	3.5mm min	No Minimum	N/A



**Peroneus longus**

Part code	Specification	Tendon length	Single diameter	Folded diameter
43922000	Peroneus longus double strand (frozen, aseptic)	26.0cm min	No Minimum	7.5mm min
43917000	Peroneus longus double strand (frozen, irradiated)	26.0cm min	No Minimum	7.5mm min
44317004	Peroneus longus single strand (frozen, irradiated)	20.0–22.9cm	5.0mm min	No Minimum

# Non-bone tendon precision measuring

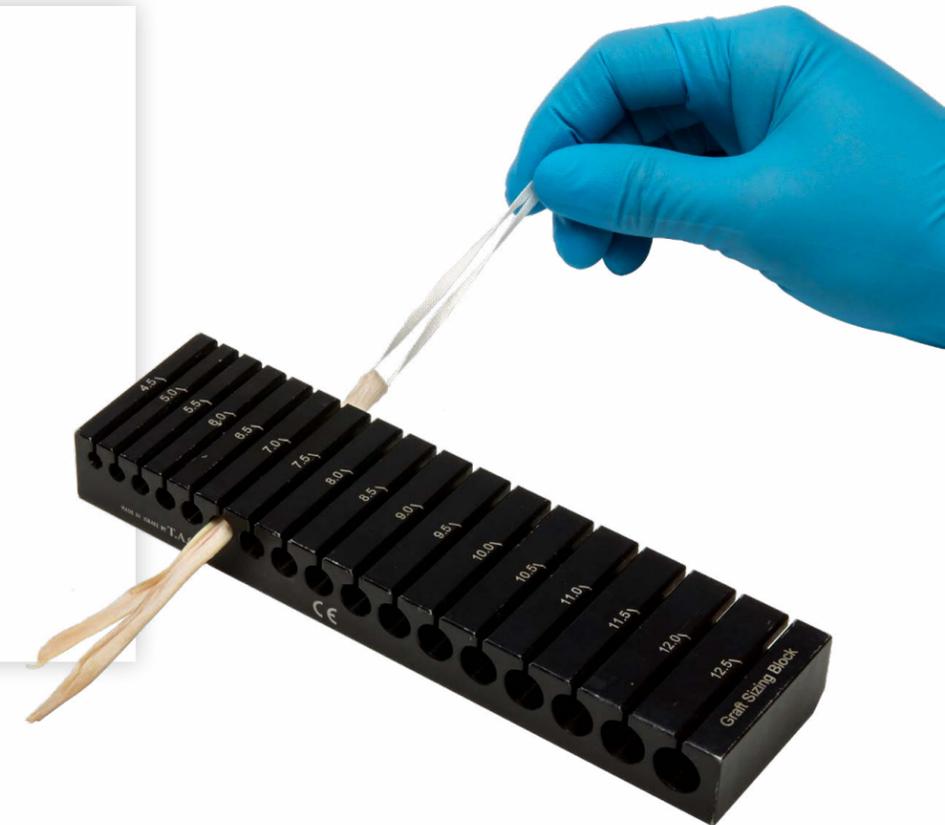
The length, folded diameter and single diameter are measured on every non-bone tendon.



## Precision non-bone tendon folding measurements

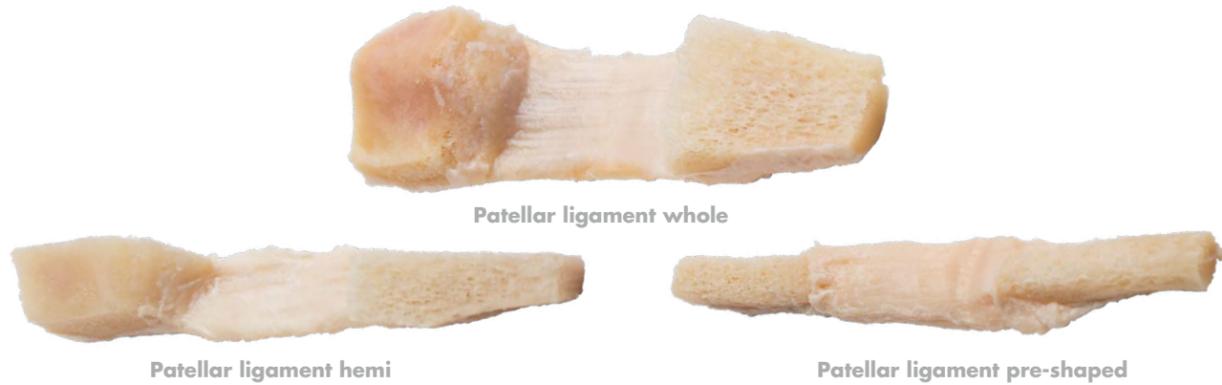
The folded diameter is measured by folding the tendon at the center over sterile umbilical tape.

The folded tendon is then passed with minimal force through sequentially smaller diameters on a sizing block until the sizing block can be slightly lifted up from the sterile field with the tendon remaining in the sizing block.





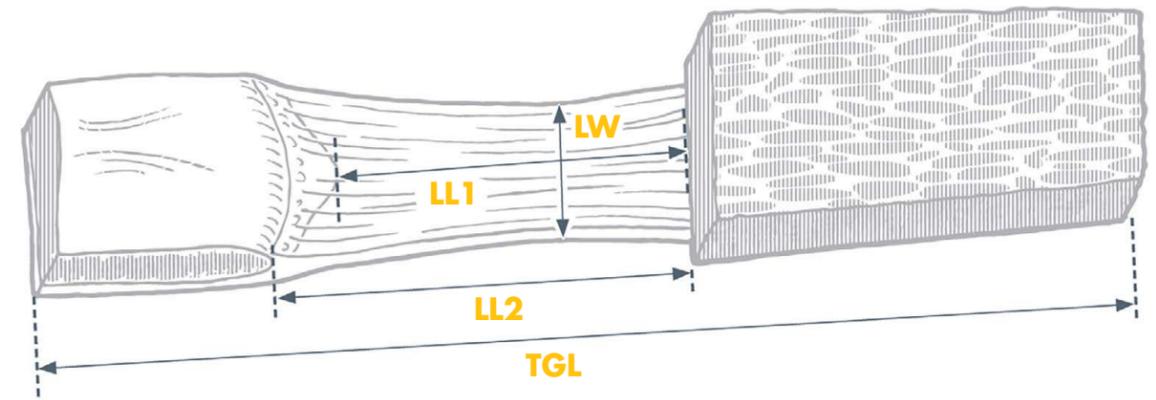
Achilles						
Part code	Specification	Minimum tendon length	Minimum tendon width	Minimum block length	Block thickness/diameter	Minimum block width
10022100	Achilles pre-shaped (frozen, aseptic)	19.0cm	1.1cm	2.5cm	0.9-1.1cm	N/A
10017100	Achilles pre-shaped (frozen, irradiated)	19.0cm	1.1cm	2.5cm	0.9-1.1cm	N/A
10022000	Achilles with bone block (frozen, aseptic)	14.0cm	No Minimum	1.0cm	1.0cm min	1.0cm
10017000	Achilles with bone block (frozen, irradiated)	14.0cm	No Minimum	1.0cm	1.0cm min	1.0cm



Patellar Ligament								
Part code	Specification	Patellar ligament length	Ligament length min (LL1)	Ligament width	Block length	Block thickness/diameter	Block width	Quad length
17822000	Patellar ligament hemi (frozen, aseptic)	N/A	3.0-5.0cm	1.0cm min	2.0cm min	1.3cm min	N/A	N/A
17817000	Patellar ligament hemi (frozen, irradiated)	N/A	3.0-5.0cm	1.0cm min	2.0cm min	1.3cm min	N/A	N/A
17922000	Patellar ligament whole (frozen, aseptic)	N/A	3.4-4.8cm	2.2cm min	2.0cm min	1.3cm min	N/A	N/A
17917000	Patellar ligament whole (frozen, irradiated)	N/A	3.4-4.8cm	2.2cm min	2.0cm min	1.3cm min	N/A	N/A
18022000	Patellar ligament pre-shaped (frozen, aseptic)	No Minimum	3.0-5.0cm	0.9cm min	N/A	0.95-1.0cm	N/A	N/A
18017000	Patellar ligament pre-shaped (frozen, irradiated)	No Minimum	3.0-5.0cm	0.9cm min	N/A	0.95-1.0cm	N/A	N/A
24822000	Patellar ligament whole with quad (frozen, aseptic)	N/A	No Minimum	2.5cm min	2.5cm min	1.3cm min	1.3cm min	5.0cm min
24817000	Patellar ligament whole with quad (frozen, irradiated)	N/A	No Minimum	2.5cm min	2.5cm min	1.3cm min	1.3cm min	5.0cm min

# Bone-patellar tendon-bone measurements

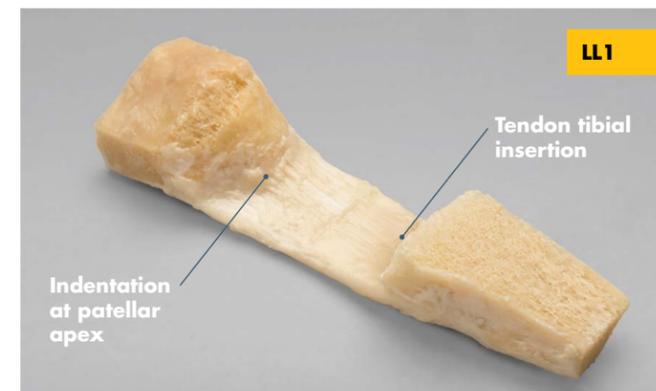
Every bone-patellar tendon-bone allograft is meticulously measured for proper tendon-to-patient sizing.



The **Total Graft Length (TGL)** is measured from end to end of the allograft.

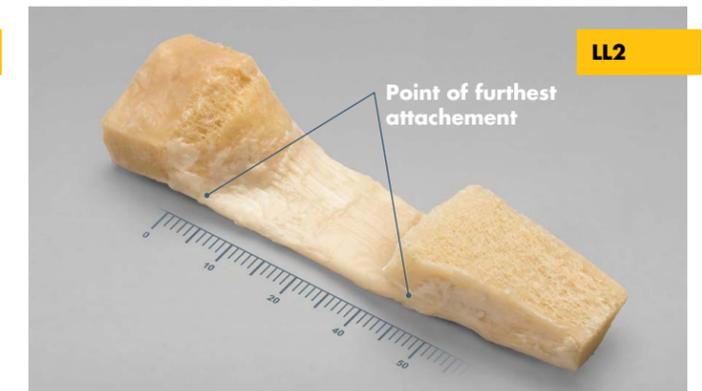
Two separate ligament length measurements are taken; **Ligament Length 1 (LL1)**, the length of the ligament from the Tibial insertion to the apex of the Patella bone.

**Ligament Length 2 (LL2)**, the length of the ligament from the Tibial insertion to the furthest attachment of the ligament to the Patella bone. The ligament width, Tibial bone block length and width are also measured to aid in procedure planning and allograft use.



## LL1 MEASUREMENT

Measurement indicated by space between the tendon tibial insertion and the indentation at the patellar apex. Ligament is held taught while on sterile field.



## LL2 MEASUREMENT

Measurement indicated by space between point of furthest attachment.

# Fascia lata



## FASCIA LATA

Part code	Specification	Minimum length direction of striations >= width	Minimum width	Area
14415034	Fascia lata 9–34.9cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	9–34.99cm <sup>2</sup>
14415045	Fascia lata 35–45.9cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	35–45.99cm <sup>2</sup>
14415095	Fascia lata 46–95.9cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	46–95.99cm <sup>2</sup>
14415150	Fascia lata 96–150.9cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	96–150.99cm <sup>2</sup>
14415260	Fascia lata 151–260.9cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	151–260.99cm <sup>2</sup>
14415261	Fascia lata >261cm <sup>2</sup> (freeze-dried, irradiated)	No Minimum	No Minimum	> 261cm <sup>2</sup>
14417034	Fascia lata 9–34.9cm <sup>2</sup> (frozen, irradiated)	No Minimum	No Minimum	9–34.99cm <sup>2</sup>
14417095	Fascia lata 46–83.9cm <sup>2</sup> (frozen, irradiated)	No Minimum	No Minimum	46–83.99cm <sup>2</sup>
14417150	Fascia lata 84–150.9cm <sup>2</sup> (frozen, irradiated)	14.0cm	6.0cm	84–150.99cm <sup>2</sup>
14417260	Fascia lata 151–260.9cm <sup>2</sup> (frozen, irradiated)	No Minimum	No Minimum	151–260.99cm <sup>2</sup>

## Cleaning and sterilization

AlloSource offers both irradiated and aseptic tendons to meet the needs of patients.

### Cleansing

AlloSource's AlloTrue technology is a unique, patented process designed to penetrate deep within donor tissue to remove blood and lipids, and reduce bioburden, while still maintaining tissue integrity.<sup>6</sup> Tissue integrity is maintained with consistent, automated processing, temperature regulation and limited reagent exposure.<sup>6</sup>

AlloTrue cleanses the tissue to a SAL (sterility assurance level) of 10<sup>-3</sup>. SAL is measured as a probability. A SAL of 10<sup>-3</sup> is a 1 in 1000 chance of a living organism surviving the cleansing process. This is referred to as aseptic.

### Sterilization

AlloSource utilizes a validated low dose e-beam irradiation process, yielding a Sterility Assurance Level of 10<sup>-6</sup> without impacting the structural integrity of the tissue.<sup>7</sup> The automatic process controls radiation dose, exposure time and placement. AlloSource's post-processing procedure ensures each allograft is sampled for final microbial testing, evaluated for graft acceptability and stored in a sealed, sterile package.

#### References:

1. AlloSource Ref: 03618
2. AlloSource Ref: 17-115
3. DHFD13688 Rev A 2018
4. 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.
5. Geraghty S, Kuang J, Yoo D, LeRoux-Williams M, Vangsness CT Jr, Danilkovitch A. A novel, cryopreserved, viable osteochondral allograft designed to augment marrow stimulation for articular cartilage repair. *Journal of Orthopaedic Surgery and Research.* 2015;20:66.
6. Data on file at AlloSource
7. Kirk C, McGilvray, Brandon G, Santoni, A, Simon Turner, Simon Bogdanský, Donna L. Wheeler, Christian M. Puttlitz Effects of 60 Co gamma radiation dose on initial structural biomechanical properties of ovine bone—patellar tendon—bone allografts. 2010.

## Ordering option:

Call your Stryker's Sports Medicine rep or email [allograftorders@stryker.com](mailto:allograftorders@stryker.com)



## ProChondrix CR

Part number	Description
234210011	ProChondrix CR 11mm x 1.0mm implant
234210013	ProChondrix CR 13mm x 1.0mm implant
234210015	ProChondrix CR 15mm x 1.0mm implant
234210017	ProChondrix CR 17mm x 1.0mm implant
234210020	ProChondrix CR 20mm x 1.0mm implant
58160-11	ProChondrix disposable instrumentation - 11mm
58160-13	ProChondrix disposable instrumentation - 13mm
58160-15	ProChondrix disposable instrumentation - 15mm
58160-17	ProChondrix disposable instrumentation - 17mm
58160-20	ProChondrix disposable instrumentation - 20mm
58161-01	ProChondrix disposable instrumentation sizers 7 piece (7mm-20mm)
58161-02	ProChondrix disposable instrumentation sizers 3 piece (15mm-20mm)

## Aseptic tendons

Part number	Description
10022000	Achilles w/ bone block (frozen, aseptic)
10022100	Achilles pre-shaped (frozen, aseptic)
17822000	Patellar ligament hemi (frozen, aseptic)
17922000	Patellar ligament whole (frozen, aseptic)
18022000	Patellar ligament pre-shaped (frozen, aseptic)
18722000	Semitendinosus double strand (frozen, aseptic)
24822000	Patellar ligament whole with quad (frozen, aseptic)
26222000	Gracilis double strand (frozen, aseptic)
41522000	Anterior tibialis double strand (frozen, aseptic)
41622000	Posterior tibialis double strand (frozen, aseptic)
43922000	Peroneus longus double strand (frozen, aseptic)
44222002	Gracilis/semitendinosus double bundle (frozen, aseptic)
44322000	Anterior tibialis single strand (frozen, aseptic)
44322002	Gracilis single strand (frozen, aseptic)

## Sports Medicine

This document is intended solely for the use of healthcare professionals. A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. We do not dispense medical advice and recommend that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate Stryker's products. A surgeon must always refer to the package insert, product label and/or instructions for use, including the instructions for cleaning and sterilization (if applicable), before using any of Stryker's products. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets.

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## Irradiated tendons

Part number	Description
10017000	Achilles with bone block (frozen, irradiated)
10017100	Achilles pre-shaped (frozen, irradiated)
17817000	Patellar ligament hemi (frozen, irradiated)
17917000	Patellar ligament whole (frozen, irradiated)
18017000	Patellar ligament pre-shaped (frozen, irradiated)
18717000	Semitendinosus double strand (frozen, irradiated)
24817000	Patellar ligament whole with quad (frozen, irradiated)
26217000	Gracilis double strand (frozen, irradiated)
41517000	Anterior tibialis double strand (frozen, irradiated)
41617000	Posterior tibialis double strand (frozen, irradiated)
43917000	Peroneus longus double strand (frozen, irradiated)
44217002	Gracilis/semitendinosus double bundle (frozen, irradiated)
44317000	Anterior tibialis single strand (frozen, irradiated)
44317001	Posterior tibialis single strand (frozen, irradiated)
44317002	Gracilis single strand (frozen, irradiated)
44317003	Semitendinosus single strand (frozen, irradiated)
44317004	Peroneus longus single strand (frozen, irradiated)

## Fascia lata

Part number	Description
14415034	Fascia lata 9-34.9cm <sup>2</sup> (freeze-dried, irradiated)
14415045	Fascia lata 35-45.9cm <sup>2</sup> (freeze-dried, irradiated)
14415095	Fascia lata 46-95.9cm <sup>2</sup> (freeze-dried, irradiated)
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14417150	Fascia lata 84-150.9cm <sup>2</sup> (frozen, irradiated)
14417260	Fascia lata 151-260.9cm <sup>2</sup> (frozen, irradiated)



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