

# THE NON-IRRADIATED OPTION FOR LIGAMENT PROCEDURES.

JRF Ortho tendons are aseptically handled throughout the process, never being exposed to irradiation.

Some processors market their tissue as processed and packaged aseptically but up to 65% of their tendons may still be treated with irradiation.<sup>1</sup>

An allograft cleanse, soak and rinse process is used. The formula does not include harsh chemicals – 98% Sterile Water and 2% mixture of isopropyl alcohol and antibiotics. The process does not contain Hydrogen Peroxide, which damages collagen.<sup>2</sup>

Each tissue has two cultures; including a highly sensitive final fluid extraction culture<sup>3</sup> which must be negative for any growth.

**FOR THE SURGEON WHO WANTS  
NON-IRRADIATED TENDON  
ALLOGRAFTS, JRF ORTHO OFFERS  
A WIDE VARIETY TO MEET  
YOUR NEEDS**

JRF Ortho offers a full complement of aseptic allografts, readily available below.



PRE-SHAPED BTB



ANTERIOR TIBIALIS

## BONE TENDONS

- Achilles tendon**  
(pre-shaped bone available)
- Patella ligament**  
(pre-shaped bone available)
- Quadriceps Tendon**

## SOFT TISSUE GRAFTS

- Tibialis tendon**  
(anterior and posterior, single and double strand available)
- Peroneus Longus tendon**

- Semi-tendinosus tendon**  
(single & double strand available)
- Semi-tendinosus/gracilis quad bundle**
- Gracilis tendon**  
(single & double strand available)



# SAFETY, TISSUE INTEGRITY

## ADVANCED CLEANSING TECHNOLOGIES CLEANSE WHILE PRESERVING TISSUE INTEGRITY

Tissue integrity is maintained with consistent processing, monitored temperature and limited reagent exposure.

**Our processors' use a proprietary bioburden reduction step that removes blood and lipids.**



## MAXIMIZING SAFETY THROUGH DONOR EVALUATION

JRF Ortho and its recovery and processing partners utilize extensive evaluation criteria to identify and qualify suitable donors in accordance with AATB standards including: donor screening, recovery procedures, serological evaluation, microbiological testing and medical records review.

**Utilizing highly sensitive NAT testing has resulted in no confirmed incidence of disease transmission**



## CONFIRMED ABSENCE OF MICROBES

Tissue is released after no growth culture results from a validated membrane filtration test. Fluid extraction testing is more accurate because contamination is difficult to detect by swabbing the external surface of the graft.<sup>4</sup>

**Results clearly demonstrate that the liquid culture method is superior to swab cultures in microbial detection.<sup>3</sup>**

### Regulatory Compliance

- ✓ FDA
- ✓ AATB
- ✓ CLIA
- ✓ ISO

1. "Approximately 65% of all recovered unprocessed tissue is exposed to a low dose (12 to 18 kGy) of gamma irradiation in a frozen state prior to aseptic processing. The Musculoskeletal Transplant Foundation utilizes this low-dose irradiation pretreatment step to decontaminate tissue prior to aseptic processing." Greenberg, D. D., et al. Allograft Compared with Autograft Infection Rates in Primary Anterior Cruciate Ligament Reconstruction. *The Journal of Bone and Joint Surgery* 92.14 (2010): 2402-408.

2. Gardner EM, VonderHeide N, Fisher R, Brooker G, Yates PJ. Effect of hydrogen peroxide on human tendon allograft. *Cell Tissue Bank*. 2013 Dec;14(4):667-71. doi: 10.1007/s10561-013-9377-x. Epub 2013 May 18.

3. Dennis, J et al. A comparison of two microbial detection methods used in aseptic processing of musculoskeletal allografts tissues. *Cell Tissue Bank*. 2011;12:45-50.

4. Vehmeyer S et al. Bacterial contamination in postmortem bone donors. *Acta Orthop Scand* 2002;73(6):678-683.

► **PICK YOUR SPECIFIC TENDON USING THE JRF APP OR ONLINE AT [JRFORTHO.org/order](http://JRFORTHO.org/order)**

## TO ORDER

**877-255-6727**  
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