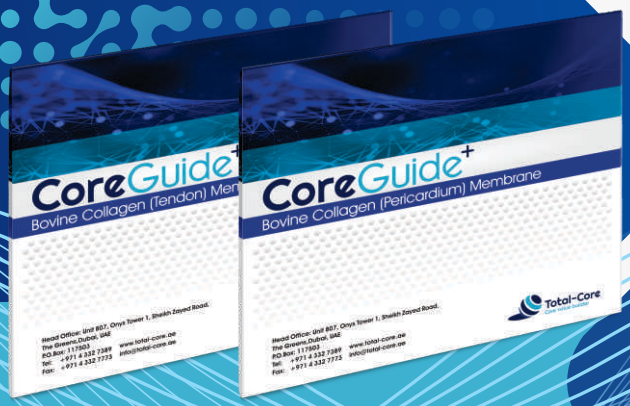
CoreGuide+

- Bovine Collagen (Pericardium) Membrane
- Bovine Collagen (Tendon) Membrane



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CoreGuide+

Bovine Collagen (Pericardium) Membrane
Bovine Collagen (Tendon) Membrane,

Pericardial and Tendon-Derived Collagen Membranes

Key characteristics of **CoreGuide**+membranes include high biocompatibility, excellent tissue adhesion, and optimal flexibility, making them ideal barrier membranes in reconstructive surgery. Their primary function is to prevent the ingrowth of soft tissue cells into bone defect areas and to promote guided bone regeneration. They are also used in certain procedures to prevent tissue adhesion and guide organized tissue repair.

The manufacturing process employs advanced technology and controlled procedures. The most critical step involves complete decellularization and removal of all antigenic components to minimize or eliminate host immune responses. The final product undergoes several stringent quality control steps, is packaged, and sterilized by gamma irradiation at a dose of 25 kGy.

In addition to dental and maxillofacial surgery, BioBarrier® membranes are used in medical procedures, including: pericardial reconstruction after open-heart surgery, biological patch repair of cardiac and vascular defects, dura mater reconstruction in neurosurgery, and soft tissue repair to prevent visceral adhesion or create protective layers between tissues.

Bovine Collagen (Pericardium) Membrane:

Key Specifications

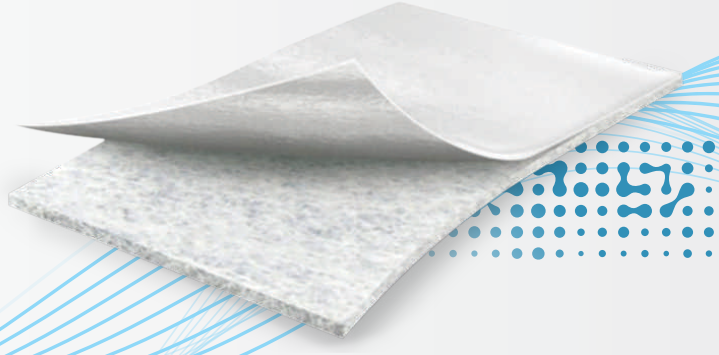
- **Origin:** Bovine pericardium
- **Composition:** Natural Type I and Type III collagen
- **Structure:** Organized arrangement of collagen fibers with natural biological cross-links

Key Features

- Excellent adhesion to soft and hard tissues
- Greater flexibility than tendon-derived membranes, with conformability in curved areas
- Longer resorption time compared to **Bovine Collagen (Pericardium)**, due to preserved natural collagen cross-linking
- High mechanical resistance to tearing, with easy suturing and space maintenance for bone graft coverage
- Natural collagen structure with biological cross-links similar to native body membranes
- Available in two thickness variants:
- Thin: 150–300 µm
- Thick: 500–1000 µm
- Rapid wetting with high foldability for secure fixation in challenging areas using pins, tacks, or sutures in all directions

Storage Conditions

- Temperature: 15–30°C
- Shelf life: 3 years from date of manufacture



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Bovine Collagen (Pericardium) Membrane Available Sizes:

Ref No.	Size	Thickness
CGPM-1010	10 X 10 mm	150-300 µm
CGPM-1015	10 X 15 mm	150-300 µm
CGPM-1020	10 X 20 mm	150-300 µm
CGPM-1520	15 X 20 mm	150-300 µm
CGPM-2025	20 X 25mm	150-300 µm
CGPM-2030	20 X 30 mm	150-300 µm
CGPM-2040	20 X 40 mm	150-300 µm
CGPM-3040	30 X 40 mm	150-300 µm
CGPM-1010-T	10 X 10 mm	500-1000 µm
CGPM-1015-T	10 X 15 mm	500-1000 µm
CGPM-1020-T	10 X 20 mm	500-1000 µm
CGPM-1520-T	15 X 20 mm	500-1000 µm
CGPM-2025-T	20 X 25mm	500-1000 µm
CGPM-2030-T	20 X 30 mm	500-1000 µm
CGPM-2040-T	20 X 40 mm	500-1000 µm
CGPM-3040-T	30 X 40 mm	500-1000 µm

Bovine Collagen (Tendon) Membrane Available Sizes:

Ref No.	Size	Thickness
CGCM-1010	10 X 10 mm	300 µm
CGCM-1015	10 X 15 mm	300 µm
CGCM-1020	10 X 20 mm	300 µm
CGCM-1520	15 X 20 mm	300 µm
CGCM-2025	20 X 25mm	300 µm
CGCM-2030	20 X 30 mm	300 µm
CGCM-2040	20 X 40 mm	300 µm
CGCM-3040	30 X 40 mm	300 µm

Bovine Collagen (Tendon) Membrane:

Key Specifications

- **Origin:** Bovine Achilles tendon
- **Composition:** High-density Type I collagen, with no chemical cross-linking
- **Structure:** Dense architecture, 300 µm thickness

Key Features

- Excellent adhesion to soft and hard tissues
- High flexibility with minimal folding during use
- Longer resorption time compared to non-cross-linked collagen membranes
- Dense collagen matrix with adequate mechanical stability for space maintenance
- Faster wetting compared to pericardial membranes, with structural stability suitable for pin or tack fixation
- Higher swelling rate than the pericardial variant

Storage Conditions

- Temperature: 15–30°C
- Shelf life: 3 years from date of manufacture

Bovine Collagen (Pericardium) Membrane Bovine Collagen (Tendon) Membrane, Comparative Overview

Property	Bovine Collagen (Tendon)	Bovine Collagen (Pericardium)
Origin	Bovine Achilles tendon	Bovine pericardium
Composition	Purified Type I collagen, no chemical cross-links	Type I & III collagen with natural biological cross-links
Flexibility	Lower than pericardial	Very high
Tensile Strength	Adequate, similar to standard products	Very high
Thickness	300 µm	highThin: 150–300 µm / Thick: 500–1000 µm
Resorption Time	4–8 weeks	8–12 weeks
Wetting	Moderate wetting, good swelling capacity	Rapid wetting, low swelling
Fixation	Pins and tacks	Sutures, pins, and tacks in all directions
Structure	Higher collagen content	Natural collagen structure preserved

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Indications for Use

Both **Bovine Collagen (Tendon) Membrane** and **Bovine Collagen (Pericardium) Membrane** are indicated for guided soft and hard tissue regeneration across dentistry, orthopedics, and specialized medical fields:

General Indications (Both Types)

- Periodontics, endodontics, and oral surgery for periodontal tissue regeneration (preferably **Bovine Collagen (Tendon) Membrane**)
- Sinus wall bone repair and sinus membrane augmentation in sinus lift procedures (preferably **Bovine Collagen (Tendon) Membrane)**
- Simultaneous implant placement
- Guided Tissue Regeneration (GTR) with or without graft materials (autograft, allograft, xenograft — preferably with **Bovine Collagen (Tendon) Membrane**)
- Guided Bone Regeneration (GBR) combined with bone grafts
- Protection of bone and soft tissue grafts in maxillofacial reconstructive surgery
- Reconstruction of skin lesions such as burns, wounds, and chronic injuries
- Non-adhesive layer between tendons to prevent adhesion
- Sinus areas or high-mobility sites — preferably **Bovine Collagen (Tendon) Membrane)** due to volumetric swelling after wetting
- Sausage Technique for graft volume maintenance — preferably BioBarrier®PM due to high flexibility and tensile strength

Specialized Indications for Bovine Collagen (Pericardium) Membrane

- **Open-heart surgery:** pericardial reconstruction and prevention of cardiac-sternal adhesion
- **Vascular surgery:** wrap around synthetic grafts or for aneurysm repair (particularly aortic)
- **Neurosurgery:** Dura mater patch substitute to prevent CSF leakage
- **Plastic and reconstructive surgery:** reconstruction after tumor resection or trauma
- Prevention of visceral adhesion in abdominal or pelvic surgeries
- Cleft lip and palate repair in pediatric surgery
- Soft/hard tissue reconstruction in orthopedic limb surgery (hand, foot, knee, tibia)
- Tissue repair after trauma, dermatology, and ophthalmology

Biocompatibility & Regulatory Compliance

CoreGraft+ collagen membranes have successfully passed all mandatory biocompatibility tests in accordance with ISO 10993-1:2018 Annex A, Table A1.

- Pyrogenicity
- Sensitization
- Irritation
- Acute and subacute systemic toxicity
- Chronic and subchronic systemic toxicity
- Cytotoxicity
- Genotoxicity
- In vivo implantation biocompatibility study

The manufacturing process is conducted in accordance with ISO 13485:2016 quality management system requirements, verified and certified by IMQ Italy (a recognized European body).

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