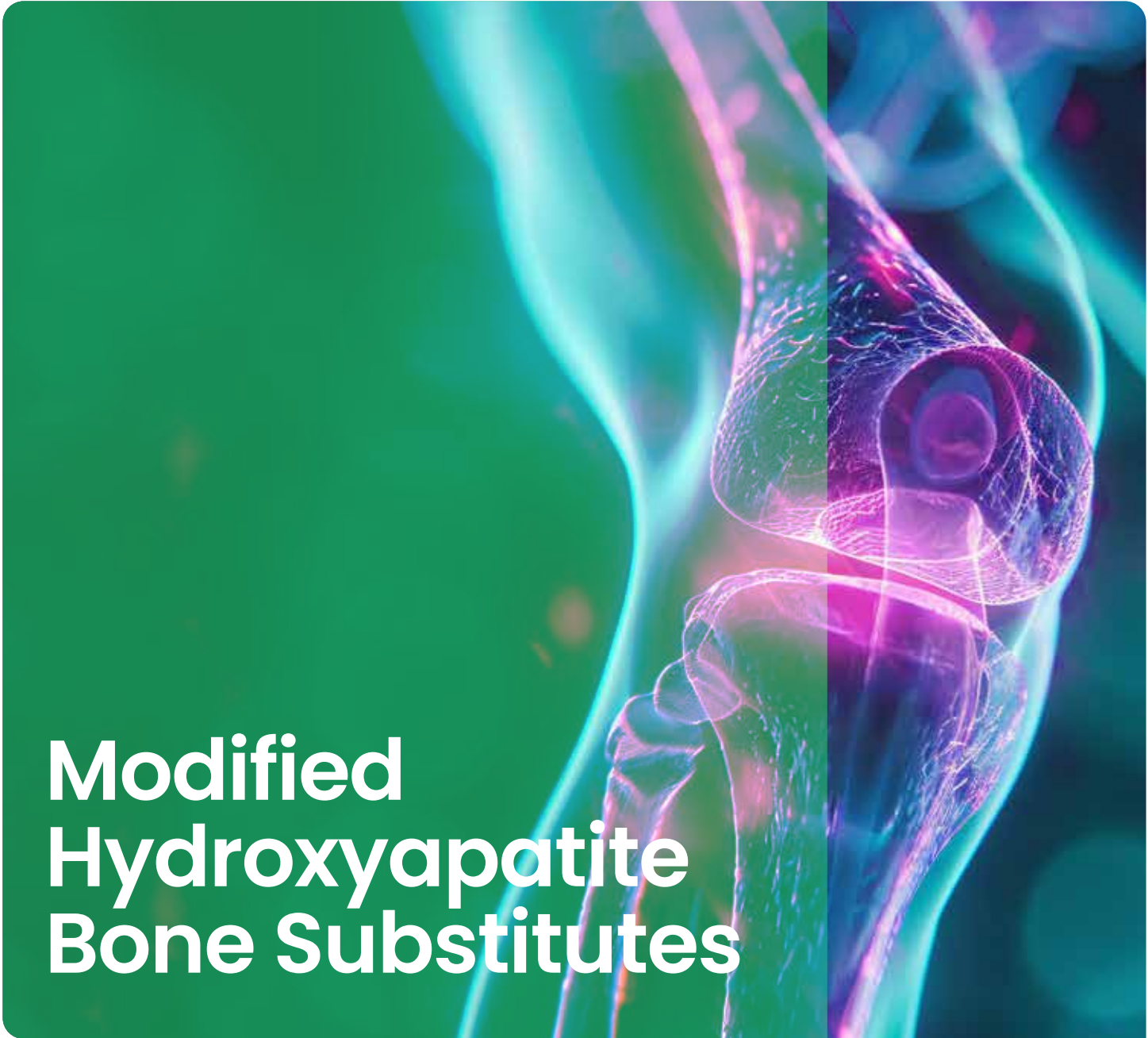


A 3D medical illustration of a human knee joint. The bones are rendered in a translucent, wireframe-like style with a color gradient from green to blue. A prominent mesh structure is overlaid on the joint, particularly around the femur and tibia, suggesting a bone substitute or scaffold. The background is a solid green color.

Modified Hydroxyapatite Bone Substitutes

RIOSTIN™ is dedicated to the development of advanced **modified hydroxyapatite bone substitutes** designed to support natural bone regeneration.

Our products are engineered to deliver **high biocompatibility, optimal porosity, and structural stability**, making them suitable for a wide range of orthopaedic and reconstructive applications.

RIOSTIN™ products are developed to meet international medical standards and has successful user experience of more than a decade by qualified healthcare professionals.

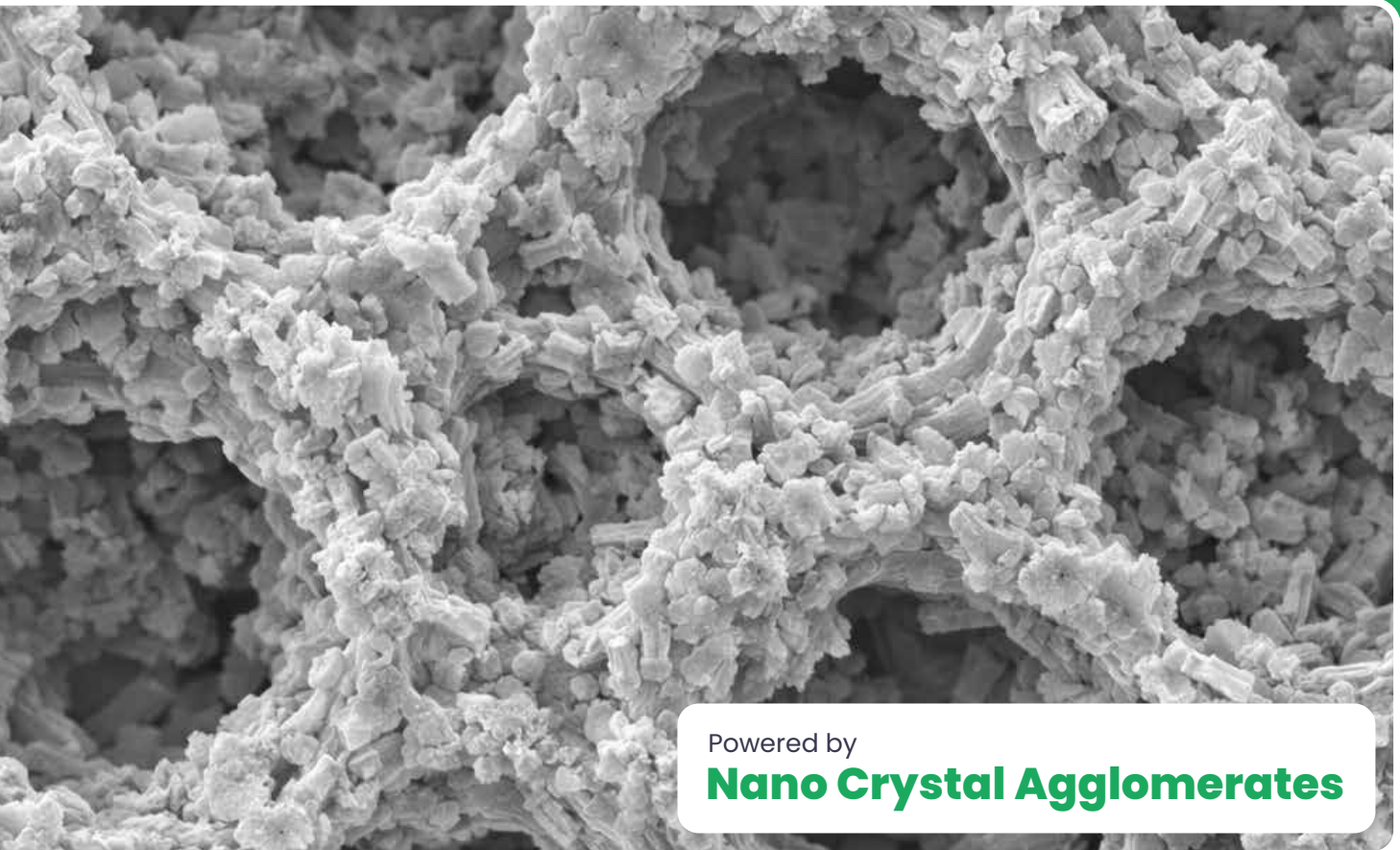
Supporting natural bone healing!





Modified Hydroxyapatite Technology

Hydroxyapatite is a calcium phosphate material that closely resembles the mineral component of natural bone. RIOSTIN™ modified hydroxyapatite is a combination of 40% HA Hydroxyapatite) & 60% of B-TCP (Beta Tricalcium Phosphate) engineered to:



Powered by

Nano Crystal Agglomerates

**SUPPORT
OSTEOCONDUCTIVE
BONE GROWTH**

**GRADUALLY
INTEGRATE WITH
NATIVE BONE TISSUE**

**MAINTAIN STRUCTURAL
INTEGRITY DURING
HEALING**

**PROMOTE CELL
ATTACHMENT AND
PROLIFERATION**

Its controlled porosity and surface modification allow effective vascularization and bone in-growth.

Modified Hydroxyapatite Granules

RIOSTIN™ Hydroxyapatite Granules are sterile, biocompatible bone substitute granules designed to fill bone defects and support natural bone regeneration.

Key Features

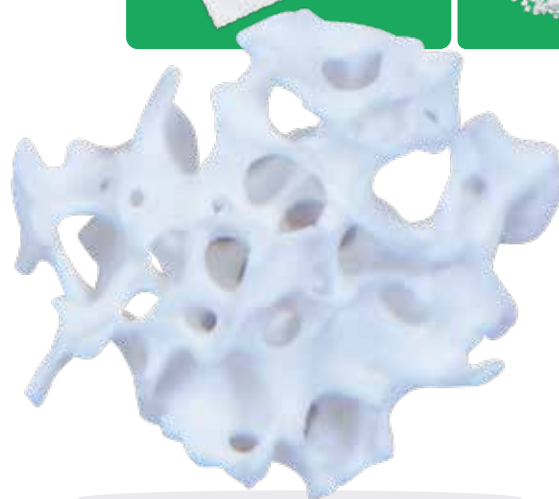
- Powered by Nano Crystal Agglomerates
- Modified hydroxyapatite composition
- High osteoconductive
- Controlled particle size distribution
- Excellent biocompatibility
- Supports gradual bone integration

Indications

- Orthopaedic bone defects
- Trauma-related bone voids
- Maxillofacial procedures
- Dental and reconstructive applications

Available Sizes

Product Description	Ref. No.
RIOSTIN™ Granules 10cc Pack	
0.1- 0.4 mm average Particle Size	MHAG1
0.4- 0.9 mm average Particle Size	MHAG2
0.8- 1.8 mm average Particle Size	MHAG3
1.8- 3.0 mm average Particle Size	MHAG4
RIOSTIN™ Granules 1cc Pack	
0.1- 0.4 mm average Particle Size	MHAG11
0.4- 0.9 mm average Particle Size	MHAG21
0.8- 1.8 mm average Particle Size	MHAG31



Modified Hydroxyapatite Blocks

RIOSTIN™ Hydroxyapatite Blocks are pre-formed bone substitute blocks designed for structural bone regeneration where mechanical stability and shape retention are required.

Key Features

- Powered by Nano Crystal Agglomerates
- Rigid, porous structure
- High compressive strength
- Supports vascularization and bone in-growth
- Can be shaped intraoperatively

Indications

- Segmental bone defects
- Load-sharing applications
- Reconstructive orthopaedic surgery
- Maxillofacial bone reconstruction

Available Sizes

Product Description	Nos.	Ref. No.
RIOSTIN™ average block size and quantity		
1.0x0.5x0.5 cm	20 Nos.	MHAB1
1.0x1.0x2.0 cm	05 Nos.	MHAB2
1.0x1.5x2.0 cm	03 Nos.	MHAB3
2.0x2.5x0.3 cm	01 Nos.	MHAB4
2.0x2.5x0.5 cm	01 Nos.	MHAB5





RIOSTIN™
HEALING BONES!

Quick-Setting Injectable Calcium Hydroxyapatite Bone Cement

**Accelerating Bone Healing.
Reducing Complications.
Restoring Confidence.**

RIOSTIN™ is a quick-setting, injectable calcium hydroxyapatite bone cement designed to promote rapid bone healing while providing structural support at the defect site. Its advanced formulation helps protect patients from non-union and delayed union, enabling faster recovery and improved clinical outcomes.

Each Pack of RIOSTIN™ Quick Setting Injectable Hydroxyapatite Bone cement contain

- One Pouch of Cement (2gm, 5Gm or 10gm)
- 5cc Disposable Syringe
- Spatula and mixing dish
- Needle Touhey (Epidural)



Anti-Infective Advantage

RIOSTIN™ can be combined with compatible antibiotics to provide localized infection control, helping to:

Reduce post-operative infection risk

Deliver antibiotics directly to the target site

Minimize systemic antibiotic exposure

This makes RIOSTIN™ particularly valuable in trauma cases, revision surgeries, and infection-prone procedures.

Key Clinical Benefits

- **Rapid Bone Healing**
Promotes early osteoconduction and faster bone regeneration.
- **Injectable & Moldable**
Enables precise delivery into bone defects, fractures, & voids.
- **Local Anti-Infective Capability**
Can be mixed with suitable antibiotics, delivering high local concentrations directly at the surgical site.
- **Quick Setting Time**
Ensures procedural efficiency and early mechanical stability.
- **Protection Against Non-Union & Delayed Union**
Acts as a stable scaffold to support natural bone remodeling.

Instruction for use



Open the pouch and pour the powder in to the mixing dish



Slowly pour distilled water (from 1.3ml ampule) on the powder and mix with spatula.



Mix it till it forms medium viscosity paste (consistency like toothpaste)



Remove Plunger from Syringe and fill syringe with the paste



Inject the paste at the site through epidural needle on the syringe

Available Sizes

Product Description	Ref. No.
RIOSTIN™ Injectable calcium hydroxyapatite cement	
RIOSTIN™ Injectable calcium hydroxyapatite cement - 02gm	IHA02
RIOSTIN™ Injectable calcium hydroxyapatite cement - 05gm	IHA05
RIOSTIN™ Injectable calcium hydroxyapatite cement - 10gm	IHA10

Mixing suitable antibiotic powder is optional, however, Volume of water (1.3ml) needs to be consistent without any addition.

Modified Hydroxyapatite (HA) with Polycaprolactone (PCL) Paste

Next-Generation Resorbable Bone Haemostat

RIOSTIN™ Paste is an advanced bone haemostatic material formulated with Hydroxyapatite (HA) and Polycaprolactone (PCL), designed to overcome the limitations of traditional bone wax.

It provides effective haemostasis while being fully resorbable, supporting natural bone healing without long-term complications.

Key Advantages Over Traditional Bone Wax

Fully Resorbable

- Resorbs naturally within 3–6 months
- Does not remain permanently in the body

Reduced Risk of Late Infection

- Unlike bone wax, RIOSTIN™ Paste does not act as a long-term foreign body
- Minimizes risk of chronic inflammation and late-onset infection

Supports Natural Bone Healing

- Hydroxyapatite promotes bone integration
- Does not inhibit osteogenesis

Effective Haemostasis

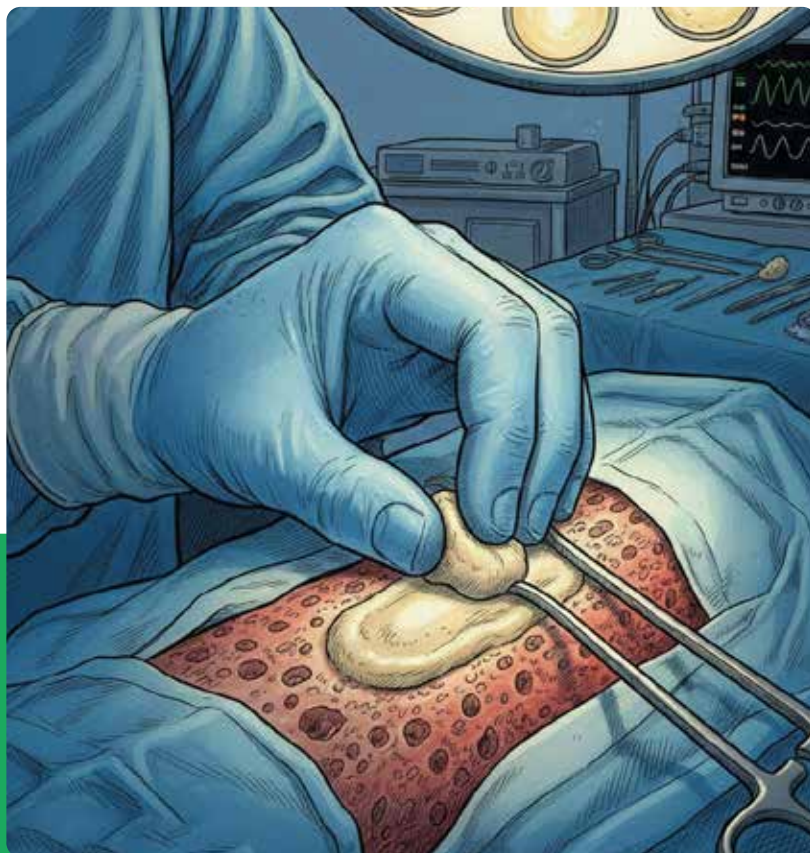
- Provides reliable mechanical bone bleeding control
- Easy to apply and mold at the surgical site

Biocompatible & Safe

- Non-toxic, non-antigenic
- Suitable for use in a wide range of surgical procedures

Indications

- Orthopaedic surgery
- Trauma surgery
- Spine procedures
- Cranio-maxillofacial surgery
- Any procedure requiring bone haemostasis



Clinical Confidence, Without Compromise

RIOSTIN™ Paste offers surgeons a modern alternative to bone wax — combining effective haemostasis, biodegradability, and enhanced safety, without compromising bone healing.

Available Sizes

Product Description	Ref. No.
RIOSTIN™ Paste – Hydroxyapatite (HA) with Polycaprolactone (PCL) – 01gm	HAP01
RIOSTIN™ Paste – Hydroxyapatite (HA) with Polycaprolactone (PCL) – 02gm	HAP02
RIOSTIN™ Paste – Hydroxyapatite (HA) with Polycaprolactone (PCL) – 05gm	HAP05
RIOSTIN™ Paste – Hydroxyapatite (HA) with Polycaprolactone (PCL) – 10gm	HAP10



RI·STIN™

HEALING BONES!

- Biomimetic bone substitute
- Designed for predictable bone regeneration
- Consistent quality and manufacturing control
- Suitable for multiple surgical disciplines
- Trusted solution for modern bone repair

Safety & Regulatory Information

- Intended for use by trained healthcare professionals only
- Ready to use Gamma – ray sterilised in double peel open packaging for single use application.
- Not intended to replace load-bearing bone without fixation
- Follow all surgical protocols and instructions for use
- ISO 13485 compliant, CDSCO approved

