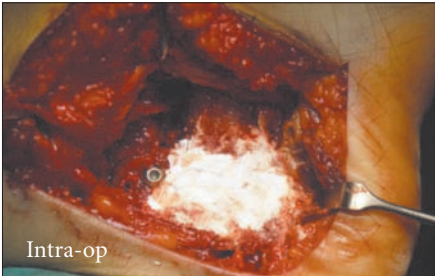


BoneSource® BVF

Osteoconductive HA Bone Paste



Restore, Regenerate, Renew

Quick, Easy, Osteoconductive Bone Paste for Orthopaedic Indication

The Simple Solution

for Restoring, Regenerating, and Renewing Bone

Versatile paste for filling bony defects provides the strength and structure to facilitate new bone formation

- BoneSource® BVF is an effective osteoconductive bone substitute made from calcium phosphate powders, which form pure HA. It has excellent biocompatibility and mechanical stability.
- Self-setting paste can be easily molded into voids of any size or shape.
- Provides an osteoconductive scaffold to encourage natural formation of new, healthy bone.
- Forms a strong bond with surrounding bone.

BoneSource® BVF offers quick and easy handling in the OR

- Pre-packaged powder in convenient mixing bowl plus calibrated solution syringe ensures accuracy and simplifies preparation.
- Does not require special storage.
- Saves time.
- Cost effective.

Validated technology from the leader in orthopaedics – Stryker

- Supported by more than 10 years of clinical performance data¹⁻⁶.



The BoneSource® BVF Sterile Kit

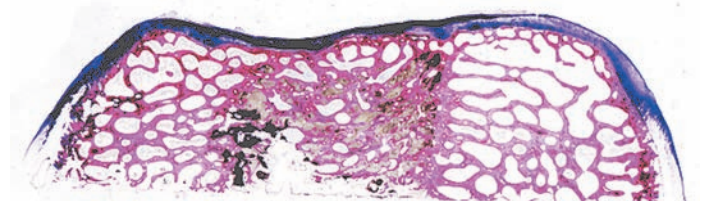
Packed In Convenient Mixing Bowl



BoneSource® BVF Sculpting Tool



Calibrated Solution Syringe



Histological cross-section at one year post-op

Many Advantages – in One Easy-to-Use Product

Safety advantages

- Excellent biocompatibility – the same mineral component as found in bone.
- Eliminates disease-transmission concerns associated with bone allografts.
- Sets with no heat release that may damage surrounding tissues.

Performance advantages

- Osteoconductive – supports bone formation and osseointegration.
- Easily sculptable – ideal for matching bony contours.
- Durable and stable – maintains its shape, position, and volume over time.
- Can be irrigated – provides resiliency to body fluids and irrigation solution.

Patient advantages

- Non invasive – eliminates the need for autograft.
- Reduces donor site morbidity.



Durable and stable, maintains volume over time



Highly sculptable, matches bony contours

Designed to Meet

Your Orthopaedic Needs

Orthopaedic Needs

BoneSource® BVF – for reconstructive surgery

- Strong and durable – ideal for bone formation in revision surgery and for reinforcing osteopenic bone.



Typical voids and cavities that can be found in revision hip surgery (distally fixed hip stem)



Proximal Area Only

Voids and cavities filled with BoneSource® BVF (distally fixed hip stem)

BoneSource® BVF - for trauma surgery

- Fast-setting paste is readily available for rapid bone stabilization.
- Easy to prepare in the surgery room.
- Requires no special storage.



Tibial Plateau Fracture



Crushed Cancellous Bone Filled With BoneSource® BVF



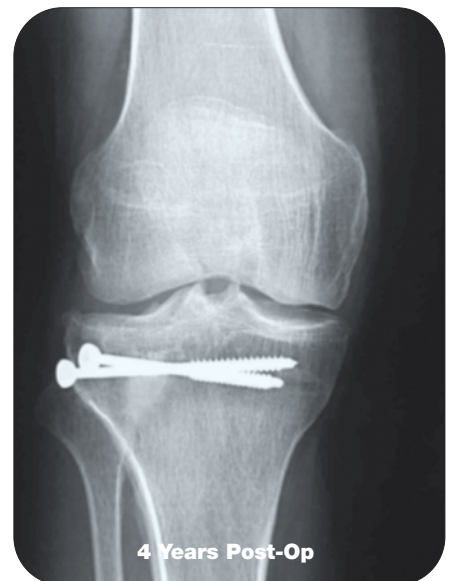
Re-elevation of Tibial Plateau



Pre-Op



Immediate Post-Op



4 Years Post-Op

10 Simple Steps

for Using BoneSource® BVF

Step 1

Determine the amount of powder needed to fill the defect (use Defect Area Fill Chart below for easy reference).

Defect Area Fill Chart

Grams of BoneSource® BVF	Approximate Volume of Bone Void Filled
2.5	1.5 cc
5	3 cc
10	6 cc
25	15 cc
50	30 cc

Step 2

Using aseptic sterile technique, remove mixing bowl from outer plastic blister pack.



Step 3

Carefully peel back cover from bowl to expose powder.



Step 4

Thread the plunger(s) into the syringe(s).



Step 5

Empty ENTIRE contents of syringe(s) into the powder in the mixing bowl.



Step 6

Using the provided spatula, vigorously mix solution and powder in a circular motion, ensuring that all the solution has been distributed throughout the powder.



Step 7

Use the spatula to press the material against the sides of the bowl until a consistent paste is achieved (the material may also be kneaded with the fingers to achieve the desired consistency). Total mixing time may vary between 30-60 seconds.



Step 8

Control active bleeding at the implant site. Suction, cautery, bone wax, and gel foam may be used.



Step 9

Apply the BoneSource® BVF Bone Paste to the site using the provided spatula or by hand.



Step 10

Allow the paste to set completely. Setting time may vary between 5-10 minutes depending upon the quantity implanted. Cautery and suction should be used as necessary to remove active fluids.



The Simple Synthetic Solution

for Restoring, Regenerating, and Renewing Bone

- Osteoconductive bone substitute made from biocompatible calcium phosphate powders that form pure HA (hydroxyapatite).
- Encourages the formation of new, healthy bone.
- Offers quick and easy handling in the OR.
- Self-setting paste can be easily molded and sculpted.
- Supported by more than 10 years of clinical performance data 1-6.
- Another high-quality product from the trusted source for orthopaedic innovations – Stryker



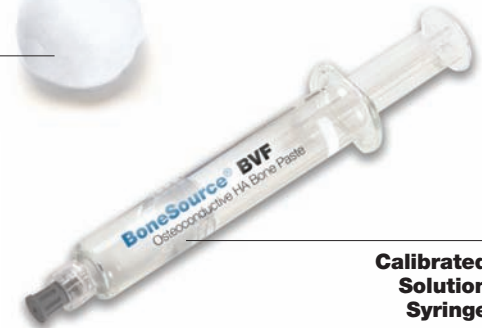
**Convenient
Mixing Bowl**

BoneSource® BVF Ordering Information

Catalog Number	Description
6184-0-025	BoneSource® BVF 2.5 gram (1.5cc)
6184-0-050	BoneSource® BVF 5 gram (3cc)
6184-0-100	BoneSource® BVF 10 gram (6cc)
6184-0-250	BoneSource® BVF 25 gram (15cc)
6184-0-500	BoneSource® BVF 50 gram (30cc)



**Easily Molded
BoneSource®
BVF Paste**



**Calibrated
Solution
Syringe**

References

1. Miyamoto Y, Ishikawa K, Fukao H, Sawada M, Nagayama M, Kon M, Asaoka K "In vivo setting behavior of fast-setting calcium phosphate cement" *Biomaterials*, 1995 Jul 16 (11): 855-860
2. Mermelstein LE, Mclain RE, Yerby SA "Reinforcement of Thoracolumbar Burst Fractures with calcium phosphate cement – a biomechanical study" *Spine*, Vol. 23, No. 6, pp. 664-671
3. Crawford K, Berrey BH, Pierce WA, Welch RD "In Vitro strength comparison of hydroxyapatite cement and polymethylmethacrylate in subchondral defects in caprine femora" *Journal of Orthopaedic Research*, Vol. 16: No. 6, pp 715-719
4. Dickson KF, Friedman J, Buchholz JG, Flandry FD "The use of BoneSource hydroxyapatite cement for traumatic metaphysical bone void filling" *J Trauma*, 2002 Dec;53(6):1103-8
5. Belkoff SM, Mathis JM, Jasper LE, Deramond H "An ex-vivo biomechanical evaluation of a hydroxyapatite cement for use with vertebroplasty" *Spine*, 2001 Jul 15, 26(14) 1542-1546
6. Data on file at Stryker.

The information presented in this brochure is intended to demonstrate the breadth of Stryker product offerings. Always refer to the package insert, product label and/or user instructions before using any Stryker product. Products may not be available in all markets. Product availability is subject to the regulatory or medical practices that govern individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

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