



Talk to your doctor today about the benefits of *OsteoCrete*[®]

Indications

Bone Solutions, Inc., *OsteoCrete*[®] Bone Void Filler is intended only for bony voids or defects that are not intrinsic to the stability of the bony structure. Bone Solutions, Inc., *OsteoCrete*[®] Bone Void Filler is intended to be placed or injected into bony voids or gaps of the skeletal system (the long bones and pelvis). These defects may be surgically created osseous defects or osseous defects created from traumatic injury to the bone. The product provides a bone void filler that resorbs and is replaced with bone during the healing process. *OsteoCrete*[®] Bone Void Filler is not intended to treat large defects that in the surgeon's opinion would fail to heal spontaneously.

For more information visit our website:
www.bonesolutions.net

References:

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- 3.) Long, Samantha, and Andrea Mp Romani. "Role of Cellular Magnesium in Human Diseases." *Austin Journal of Nutrition and Food Sciences*, U.S. National Library of Medicine, 18 Nov. 2014, www.ncbi.nlm.nih.gov/pmc/articles/PMC4379450/.
- 4.) Intro to Gene Expression." Khan Academy, Khan Academy, www.khanacademy.org/science/high-school-biology/hs-molecular-genetics/hs-rna-and-protein-synthesis/a/intro-to-gene-expression-central-dogma.
- 5.) "Magnesium." Linus Pauling Institute, 1 Jan. 2020, lpi.oregonstate.edu/mic/minerals/magnesium.
- 6.) Jahnhen-Dechent, Wilhelm, and Markus Ketteler. "Magnesium Basics." *Clinical Kidney Journal*, Oxford University Press, Feb. 2012, www.ncbi.nlm.nih.gov/pmc/articles/PMC4455825/.



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Patient Information Guide

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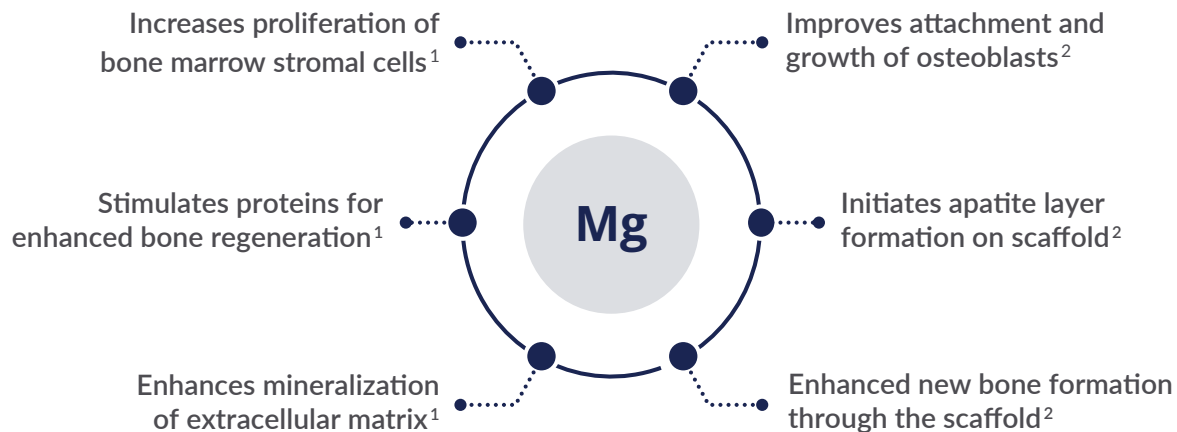
Introduction

This patient education brochure is presented courtesy of Bone Solutions, Inc. Patient results may vary. Please consult your physician to determine if these products are right for you. For prescribing information, including indications, please consult page 1 of this brochure, or visit www.bonesolutions.net



Is OsteoCrete® right for you?

OsteoCrete® is a moldable/injectable Magnesium-based bone void filler that has a unique resorption profile that provides stability while also increasing cell proliferation, advancement of mineralization with a result of enhanced bone regeneration for multiple types of orthopedic applications.



- Magnesium is critical for bone health and development. However, the role of magnesium within the body is much broader.³
- The central dogma of molecular biology is based on transcribing RNA from DNA and translating protein from RNA, none of which happens without the presence of magnesium.⁴
- Magnesium is required when synthesizing or using the ATP, the basic energy unit within the body.⁵ It is the second most common intracellular cation and serves as a cofactor for more than 300 enzymatic reactions.³
- In addition to being needed for bone formation, it regulates vascular tone and heart rhythm, and is involved with nerve and muscle function.⁶

Common Treatments

Non Surgical

Conservative or non-surgical treatment of benign bone cysts is dependent on the type of cyst involved. A simple or unicameral bone cyst for example, may heal spontaneously. Conversely, only a small minority of aggressive aneurysmal bone cysts heal on their own. Non-surgical treatment simply consists of observation and may include casting for immobilization if painful or if a fracture is present.

Surgical

Surgical treatment runs a wide gamut from injections to a more extensive procedure where a window of bone overlying the lesion is removed to allow more aggressive removal of bone with specialized tools (curettage) followed by bone grafting. Some of the cysts may cause such weakness of the bone that the addition of plates, screws or rods for stability may be necessary. Injection

techniques typically include a small incision and two large needles that allow the surgeon to aspirate, irrigate, scrape the bone of the lining of the cyst, and then inject the cavity with a substance to help promote the healing of the defect. Open procedures, on the other hand, will require more exposure of the bone and will include removal of the cyst or tumor and the use of additional treatments such as high temperature cautery, freezing or using chemicals on the inside of the lesion to ensure that it does not re-grow.