# Ist Time in India A COMPLETE PHYTOMINERAL BONE THERAPY



# Boniheal Thats out of the Ordinary...

Provides Natural Calcium, probone minerals & phytocomponents for complete bone health

# Boniheal®

Reduces the Bone Loss & Increases the Bone Strength



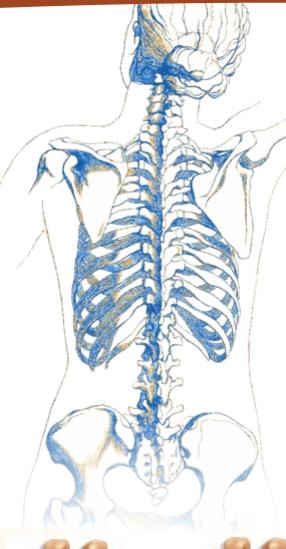
Boniheal® increases rate of fracture healing by influencing the regenration of connective tissue of mesenchymal origin viz.- Chondroblasts, Fibroblast & Osteoblast.

### Promotes Calcification of Bones

Improves calcium deposition in bone matrix to insure stability & strength of the bone. It effectively reduces the bone loss. Boniheal plays an important role in correcting deficiency imbalance. Supplements calcium in bioavailable form.

### Increases Osteoblastic Activity

by exerting anabolic effect on osteoblast precursors like Runx-2 and reducing osteoclastic activity thereby, facilitating bone formation.



#### Provides Calcium & Pro-bone minerals

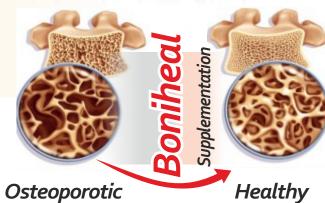
Supplements Calcium, Magnesium, Boron, Vitamin K, Zinc, Copper, Silica and also Omega 3,6 for maintenance of skeletal integrity and bone health, helps attain peak bone mass.

## Improves Bone Mineral Density (BMD)

Boniheal® Suspension has been scientifically developed on the basis of the very latest research to include calcium, Vit. D, magnesium, Zinc & vital botanical extracts which contribute to the maintenance of normal bone health.

#### Reduces Pre- & Postmenopausal bone loss

Supplements phytoestrogens, exerting estrogen like effects in bone which reduce bone loss and increase bone strength thereby, prevent deteriorative changes in bones.

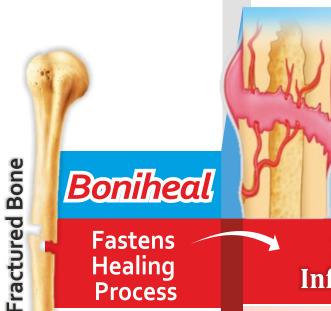


Bone

Bone

# Boniheal

Fastens Fracture Healing Naturally...



**Process** 

#### **Inflammtory Phase**

Inflammatory mediators bring repairing cells into fracture gap. Cells build new bone tissues and new cartilages

#### **Reduces Inflammation**

- Shallaki & Suranjan are potent Anti-inflammtory agents, prevent further breakdown of bone collagen.
- **Block release of** inflammatory mediators.

#### Repairative **Phase**

Proteins produced by chondroblast & osteoblast consolidate into soft tissue which further hardens into a hard callus

#### **Augments IGF System**

- Cissus quadrangularis **Fastens Repairative phase** by augmenting IGF system in Human Osteoblast.
- Increases protein levels of **IGF-IR**
- Increases IGF's, IGF-IR & **IGF-BP3** proteins in SaOS-2 cells, hastens healing process.

#### Remodelling Phase

Callus maturation & remodelling leading to formation of stronger lamellar bone



- Supplements Vitamin E, Vitamin D, Zinc, Copper & **Other Natural Anti-oxidants**
- Significantly exhibits progress in Callus maturation and remodelling.
- Provides bioactive silicon from Vanshlochan, helps in bone collagen synthesis.

\*IGF-Insulin like growth factor IGF-IR-Insulin like growth factor cell surface receptors IGF-BP3-Insulin like growth receptor binding protein SaOS-2 cells - An osteoblast cell

**Shortens Fracture healing time** 

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Reduces the Bone Loss & Increases the Bone Strength

Calcium
(Ca<sup>2+</sup>)
deposition in bones

Natural Columnia active forms

Ca(OH)<sub>2</sub>+2HClconverts into CaCl<sub>2</sub>+2H<sub>2</sub>O

> CaO+H<sub>2</sub>Oconverts into Ca(OH)<sub>2</sub>

CaCo<sub>3</sub>(s) converts into
CaO(s)+Co<sub>2</sub> (g)

### 1 CALCIUM SULPHATE

Boniheal® contains Gypsum (Godanti bhasam) a natural calcium in the form of calcium sulphate di hydrate that helps maintain healthy bone structure.

- Easily absorbed in the body.
  - Helps to heal the bones rapidly.
- Fills bone voids-fights osteoporosis.

#### 2 CALCIUM SILICATE

Boniheal® contains Bambusa arundinacea exd.(Vansh lochan) a richest known source of natural silica containing over 70% organic silica along with calcium and other minerals.

- Provides strength & resilience to collagen & elastin.
- Catalyzes the fixation of calcium to the bones
- Speed up the consolidation of bone fractures.

### 3 CALCIUM OXIDE

Boniheal® supplements calcium in its oxide form that is having tendency to get absorbed directly and enrich the bones naturally.

- Easily absorbed in the body.
  - Helps to heal the bones easily.
- Fills bone voids-fights osteoporosis

### 4 CALCIUM CARBONATE

Boniheal® provides calcium carbonate from Oyster pearl (Mukta shukti) an ideal supplement for the improvement and maintenance of strong bones.

- Most concentrated form of Natural calcium.
- Contains well tolerated calcium
- Ensures good bone health

#### Vitamin D

Source in Boniheal-Solanum tuberosum & Pumpkin seeds

- Enhances calcium absorption
- Decreases bone loss Lowers risk of fractures
- Prevents & Treats Osteoporosis

#### Vitamin

#### Vitamin K

#### Source in Boniheal-Alfalfa (Medicago sativa)

 Helps guide calcium towards the target areas where it is needed. Ideally increases bone density ensuring the development of Healthy Bones

# Boniheal®

Reduces the Bone Loss & Increases the Bone Strength

#### **Magnesium**

Catalytic enzymatic activity regulates bone formation by increasing Calcium & potassium uptake by Jahar mohra

#### **Natural Boron**

a bone building nutrient enhances metabolism of calcium, phosphorus & magnesium by Tankan

#### Vitamin C

a powerful anti-oxidant, benefits in tissue growth & repair. Improves immunity by Spinach & Black pepper

#### Vitamin A

To improve immune function, promote bone growth & healing by **Sigru** 

### Provides

# Prebone

Minerals & Nutrients

TO PROMOTE

PEAK PONE MASS ACHIEVE

PEAK BONE MASS ACHIEVEMENT



Vit.A

Mg

B

Vit.C

#### Zinc

Zn

Si

**Fatty** 

Acid

3 & 6

Promotes protein synthesis and collagen formation. Strengthens healthy immune system & healing process by Yashad

#### **Silica**

Accelerates formation of collagen & connective tissues by Vansh lochan

#### **Essential Fatty acids**

Vital for proper growth and cell formation by by Flax seeds & Kalonji Oil

#### Omega-3 & 6

A natural anti-oxidant enhances bone healing by Flax seeds & Wheat Germ oil

#### **Supplements Essential Minerals**

#### Strenthens bone

Boniheal® Suspension is a natural calcium & pro-bone mineral supplementation, provides complete support for skeleton and joints. Absorbing calcium and retaining calcium in the bone is complex process requiring trace-minerals. Boniheal does that in an excellent way.



#### **Exerts Anti-oxidant Action**

#### **Protects Bone**

Boniheal® suspension provides superior bone health antioxidant which actually stimulates osteoblasts, the bone building cells. It amazingly neutrilizes free radicals, protects bones & ultimately increase bone density.

# Boniheal

#### Exerts Anabolic effect on Osteoporotic bones

#### **EXCLUSIVE BENEFITS**

- ★ A Unique combination of 4 active, easily absorbable forms of Ca.
- ★ A rare combination of essential Pro-bone minerals with Vit. D & K.
- \* Works in all 3 phases of Fracture healing, shortens bone healing duration significantly, by 2 weeks.
- ★ Increases Osteoblastogenesis, limits Osteoclastogenesis & promotes required bone mineralisation.
- ★ Supplements superior bone health Anti-oxidants.

#### **Shows Osteoprotective effect**

Withaferin A (WFA) from Withania **somnifera** exerts bone anabolic effects in osteogenic cells induced by proteasome inhibition. BMP (Bone morphogenetic protein) signaling induced by WFA prevents degradation of Smad receptors. The transcription factor RunX2 is further stabilized by proteosomal degradation. WFA decreases TNF-α induced NF-Kb & Smruf 2 expression resulting in increased Smad & RunX2 levels. Proteasome inhibition simultaneously increases oesto-blastogenesis by stabilizing RunX2 & reducing oestoclast numbers directly by inhibiting RANKL: OPG ratio. Simultaneous induction of Osteoblastogenesis & suppresion of osteoclastogenesis results in increased bone mass.

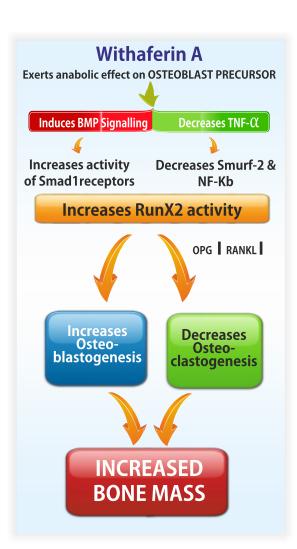
BMP: Bone Morphogenetic protein
TNF-α: Tumor necrosis factor-α, increased level
Smurf-2: Smad Ubiquitin regulatory factor -2

(Cell death & Disease 4, e778, 2013)

NF-Kb : Nuclear factor Kappa B

**Promotes Bone Mineralisation** 

Withaferin A, the natural proteosomal inhibitor, exerts anabolic effects on osteoporotic (including post menopausal) bones, osteopenic bones and promotes healing in injured bones.



#### **INDICATIONS**

- Fractured Bone
- Osteoporosis
- Delayed Bone Growth
- Bone Mineral Deficiency

#### DOSAGE

ADULTS (MEN AND WOMEN):

2 teaspoonful 3 times daily

1/2 teaspoonful 2 times daily

CHILDREN (3-6 YEARS):

CHILDREN (7-12 YEARS):

1 teaspoonful 2 times daily or as directed by the Physician.

