## Gluco-Flex Forte™

### DESCRIPTION

Gluco-Flex Forte™, provided by Douglas Laboratories, is a synergistic blend of glucosamine sulfate, n-acetyl glucosamine and bovine cartilage. The combination of these products has been carefully formulated and specifically designed to help maintain the structure and function of healthy joints.

## **FUNCTIONS**

Glucosamine is a naturally occurring amino sugar found in glycosoaminoglycans (mucopolysaccharides), integral components of the proteoglycans found in joint cartilage. Proteoglycans are large carbohydrate rich structures that provide resiliency, load distribution, shock-absorbing, compressive and lubricating properties to joints and connective tissues. Dietary glucosamine serves as an immediate precursor for glycosaminoglycan synthesis, and also stimulates incorporation of other precursors into the connective tissue matrix.

The availability of glucosamine is an integral part of the synthesis of glycosaminoglycans and proteoglycans that are necessary during the constant remodeling that aging cartilage undergoes. Thus, the maintenance of healthy aging cartilage may be improved with enhanced deposition of glycosaminoglycans and proteoglycans. Bioavailability of oral glucosamine sulfate is excellent. It is absorbed intact, and utilized very guickly by all tissues, including connective tissues. Both n-acetyl glucosamine and glucosamine sulfate have shown in studies to be effective sources of glucosamine for glycosaminoglycan and proteoglycan synthesis in all connective tissues, such as cartilage, ligaments, tendons, skin, and bone.

Chondroitin, a component of bovine cartilage, a glycosaminoglycan formed in the body, is also used for the synthesis and maintenance of connective tissue, primarily within the cartilage matrix. In addition, chondroitin protects existing cartilage by reducing water loss from the matrix and by inhibiting the enzymatic breakdown of the cartilage.

The overlapping activities as well as functional differences of glucosamine and chondroitin offer several advantages for combined supplementation. Although glucosamine is a precursor for chondroitin synthesis, this process requires large amounts of metabolic energy. Dietary preformed chondroitin spares the use of glucosamine for this purpose. Instead, glucosamine can be used for formation of other important glycosaminoglycans and proteoglycans. When adequate chondroitin is thus available to help protect tissues from premature breakdown, glucosamine can more readily stimulate synthesis of healthy new tissue.

#### INDICATIONS

Gluco-Flex Forte™ may be a useful nutritional adjunct for individuals who wish to support the body's connective tissues, such as skin, tendons, ligaments, bone, and cartilage.

# FORMULA (#80690)

| Each Capsule Contains: |       |
|------------------------|-------|
| N-Acetyl Glucosamine   | 250mg |
| Bovine Cartilage       |       |
| Glucosamine Sulfate    |       |

## SUGGESTED USE

Adults take 1 capsule daily with meals or as directed by physician.

#### SIDE EFFECTS

No adverse side effects have been reported.

# Gluco-Flex Forte™

#### **STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

### REFERENCES

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## For more information on Gluco-Flex Forte™ visit douglaslabs.com

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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You trust Douglas Laboratories. Your patients trust you.