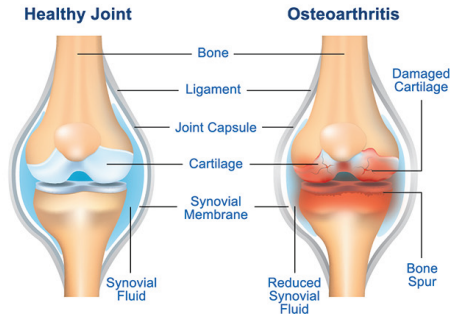


About Osteoarthritis

Osteoarthritis (OA) is the most common form of joint disease throughout the world where the articular cartilage breaks down and becomes thin. This leaves the ends of the bones unprotected and allows bones under the cartilage to rub against each other. This rubbing causes joint pain, stiffness, swelling, inflammation and the joint loses its ability to move smoothly.

Osteoarthritis may include:

- Inflammation of the tissue around a joint.
- Damage to joint cartilage.
- Reduced synovial fluid in joint cavity.
- Bony spurs growing around the edge of a joint.
- Deterioration of ligaments and tendons.



OA is the most common cause of joint discomfort, disability and limitation of activity especially in older people. OA is a chronic disease that affects the whole joint including bone, cartilage, ligaments and muscles. This degenerative joint disease usually affects the large weight-bearing joints of the lower extremities, including hip and knee.

OA can develop at any age but tends to be more common in people aged over 40 years or those who have had joint injuries. In Malaysia, OA of the knee is the most common form of OA affecting 10 to 20% of the elderly population, reaching about 30% for those over the age of 65.

80%
of adults with OA
have experienced
**MOVEMENT
LIMITATION**

The prevalence
of OA is
HIGHER
IN WOMEN
than in men

Adjuvant Therapy for Osteoarthritis

The extensive scientific research has shown excellent results for the consistent use of glucosamine HCl, chondroitin sulfate and methylsulfonylmethane (MSM) by people with OA of the knee. Those who want to safely alleviate their joint discomfort and maintain healthy joints will benefit from these 3 original researched ingredients from Spain and USA.

Clinical benefits of glucosamine HCl:

- **Rebuild damaged cartilage and lubricate the joints**
Glucosamine is the main building block for the synthesis of glycosaminoglycans (GAGs), hyaluronic acid (HA) and proteoglycans, which are important constituents of healthy cartilage and lubricating fluid in the joints.
- **Relieve joint pain, swelling and stiffness**
Glucosamine enhances the production of HA and its anti-inflammatory action helps to relieve joint pain and therefore reduce joint swelling and stiffness.
- **Increase joint mobility and flexibility**
Glucosamine increases the production of synovial fluid and proteoglycans to maintain the elasticity, strength and resilience of joints.

Clinical benefits of chondroitin sulfate:

- **Support strong healthy cartilage**
Chondroitin sulfate helps draw water into the cartilage, keeping it spongy and adding to the thickness and elasticity of cartilage and its ability to absorb compressive force.
- **Stimulate the formation of new cartilage and synovial fluid**
Chondroitin sulfate plays a role in the chondrocyte metabolism and stimulates the synthesis of GAGs and HA.

Prevent degeneration of cartilage and joints

Chondroitin sulfate inhibits the degradative enzymes, which breakdown cartilage matrix and synovial fluid and prevents the destruction of cartilage and loss of joint function.

Clinical benefits of methylsulfonylmethane:

- **Support overall joint health**
MSM is rich in organic sulfur which is an important building block for the formation of connective tissue to support healthy bones, joints and cartilage.
- **Reduce joint pain and inflammation**
MSM has anti-inflammatory effect and helps to reduce joint pain by lowering inflammatory responses that contribute to swelling and stiffness and is useful in the management of OA.
- **Improve physical function and stay active**
MSM helps reduce the degeneration of cartilage in joints and improve in physical function to support an active lifestyle and increase quality of life.

Choosing the Right Brands that Work

Most of the scientific researchers and joint health experts have recommended the use of pharmaceutical grade products rather than food supplements. They insist on the importance of the manufacturing process and also the quality of the ingredient when deciding which brand to buy.

Different products on the market contain different brands of glucosamine, chondroitin sulfate and MSM and the quality of the ingredients are also different. Therefore, it is important to find out which brand was used in the original clinical study and buy that. This is the only way to expect good results from a product that is equivalent to that reported in the clinical studies.

b-glu® is a high purity pharmaceutical grade glucosamine HCl made by Bioiberica, S.A.U., Spain, one of the world's leading company in the field of joint health. The efficacy and safety of **b-glu®** have been proven in the clinical trials conducted in France, Germany, Poland and Spain.

CS b-Bioactive® brand of chondroitin sulfate is of high quality and safety. **CS b-Bioactive®** is a pharmaceutical grade chondroitin sulfate developed by the Bioiberica, S.A.U., Spain, a world-renowned joint care company. Its efficacy and safety has been tested in more than 20 clinical studies worldwide.

OptiMSM® is a trusted and pure form of methylsulfonylmethane. **OptiMSM®** is pharmaceutical grade quality MSM and produced by distillation process. This process pioneered by Bergstrom Nutrition, Inc., USA, removes any potential impurities, leaving only pure MSM and is recognized by chemical engineers and other experts as an excellent method on the market.

Benefits	b-glu®	cs b bioactive®	OptiMSM®
Cartilage	✓	✓	✓
Subchondral bone	✓	✓	✓
Synovial membrane	✓	✓	✓
Synovial fluid	✓	✓	✓
Pain relief	✓	✓	✓
Joint protection	✓	✓	✓



b-glu® and CS b-Bioactive® are registered trademark licensed by Bioiberica, S.A.U., Spain. OptiMSM® is a registered trademark of Bergstrom Nutrition, Inc., USA.



As Adjuvant Therapy for Osteoarthritis



- ✓ Original researched ingredients
- ✓ Pharmaceutical grade
- ✓ Clinical tested

This is a medicine product advertisement
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