



JointIQ[®]

Patented Phyto-Compound for
Healthy Joint Support

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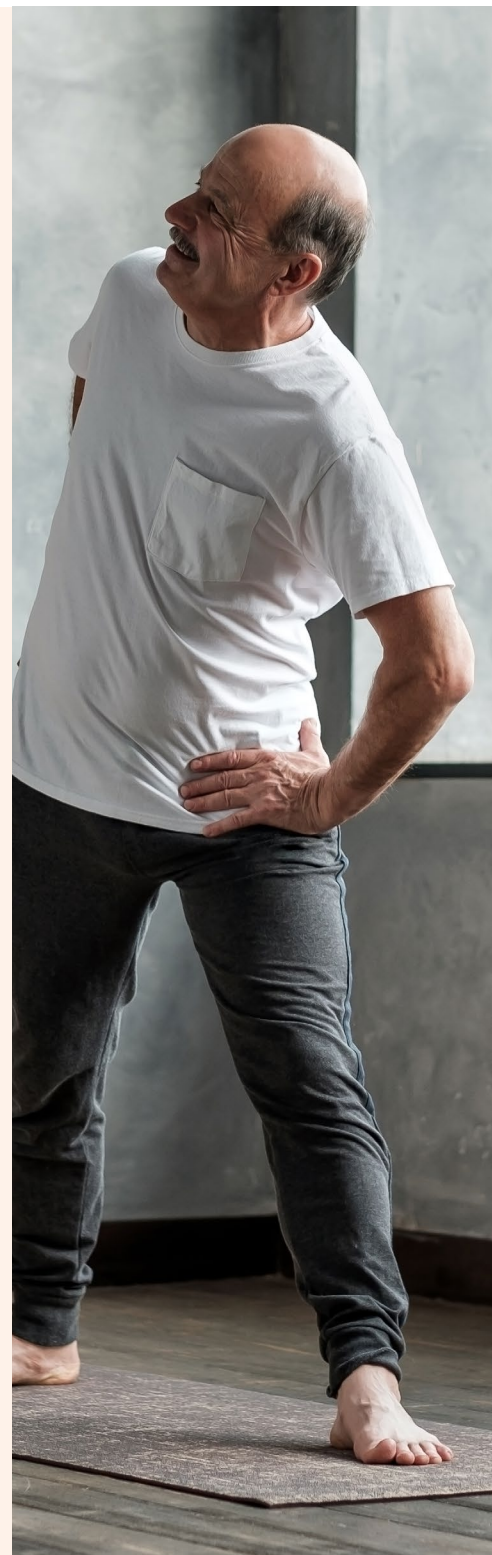
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Thank you for your interest in our research overview.



SUPPORTING HEALTHY JOINTS

7 *in-vitro* studies

Patent:
US8168596B2

KEY BENEFITS



**100%
PLANT-BASED**



PATENTED



SAFE

THE VALUE OF JOINT HEALTH

The health of our joints has a significant impact on overall quality of life. By prioritizing joint health, we are enabled to stay active and engaged in our favorite activities. Joint health contributes to maintaining independence as we age, promoting a more comfortable and fulfilling lifestyle. Ultimately, investing in joint health means investing in sustained physical capability and well-being throughout our lives.

Preclinical cell studies had suggested that JointIQ® may:

- Helps to maintain healthy cartilage indicated by lowered IL-1 β in cartilage cells
- Works to inhibit MMPs synthesis and activity, while supporting Collagen II expression

These findings suggest that JointIQ® supports cartilage and healthy joint maintenance.

STRUCTURE OF JOINT CARTILAGE

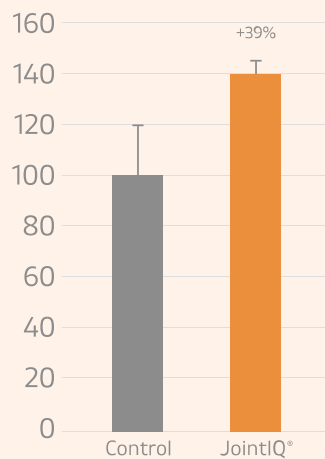
Joint cartilage is a specialized tissue crucial for smooth joint movement. This tissue does not contain blood vessels, lymphatics, or nerves, leading to limited natural healing abilities. Therefore preserving this cartilage becomes vital for long term joint health. Joint cartilage is primarily composed of an extracellular matrix (ECM) containing water, collagen, and proteoglycans supporting our body's cells and tissues. Chondrocytes, comprising around 2% of joint cartilage, actively maintain and repair the ECM, sourced from mesenchymal stem cells.

Collagen, especially Type II collagen, forms the bulk of cartilage's dry weight, providing structural stability by intertwining with proteoglycan aggregates. Hyaluronic acid (HA) is also integral to joint health as part of synovial fluid that lubricates and surrounds cartilage, facilitating smooth movement and reducing friction.

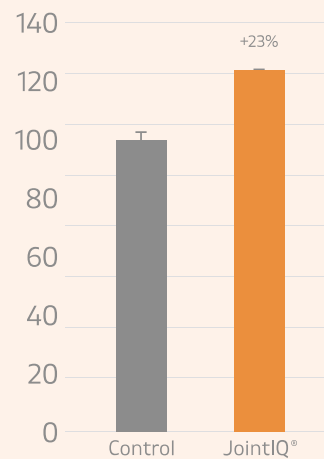
Within joint cartilage, HA contributes to its structural integrity by maintaining hydration, ensuring lubrication, and resilience against mechanical stress. This hydration is crucial for cartilage elasticity and shock absorption. HA plays a key role in preserving joint health, supporting optimal joint function, and minimizing damage due to friction, making it critical for overall joint well-being.

EFFECT OF JOINTIQ® ON GLUCOSAMINE UPTAKE AND HYALURONIC ACID CONTENT IN NORMAL HUMAN CHONDROCYTES

Relative Glucosamine Uptake (%)

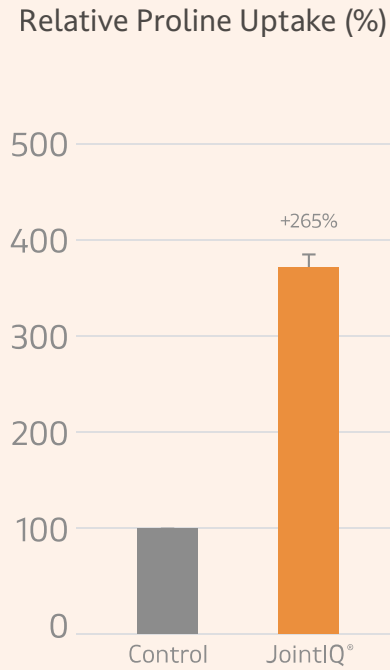


Relative Hyaluronic Acid Contents (%)



Glucosamine is used by the body to build tendons, ligaments, cartilage, and the thick fluid surrounding the joints. Hyaluronic acid is more abundant in articular cartilage and synovial fluid. Concentration of HA and its molecular weight decline as joints age. JointIQ® demonstrated (*in-vitro*) an increase in glucosamine uptake and hyaluronic acid content in normal human chondrocytes (cartilage cells).

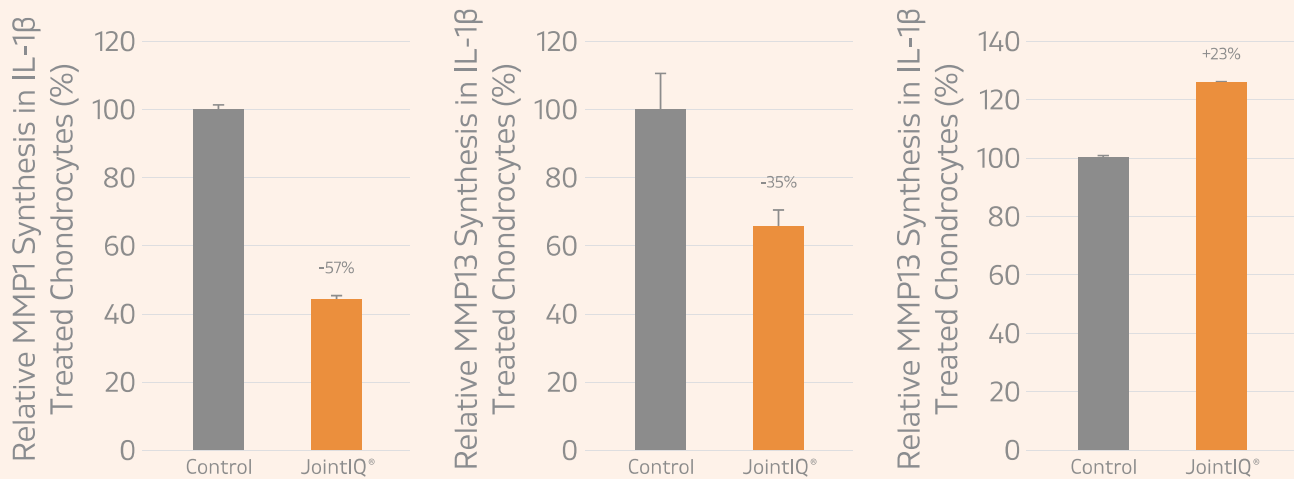
EFFECT OF JOINTIQ® ON PROLINE UPTAKE IN NORMAL HUMAN CHONDROCYTES



Proline is an amino acid necessary for the synthesis of collagen. Measurement of proline uptake in chondrocytes indicates degree of collagen synthesis in the cell. JointIQ® demonstrated (*in-vitro*) increased proline uptake in human chondrocytes (cartilage cells).

EFFECTS OF JOINTIQ® ON MMPS AND TYPE II COLLAGEN SYNTHESIS IN IL-1 β TREATED HUMAN CHONDROCYTES

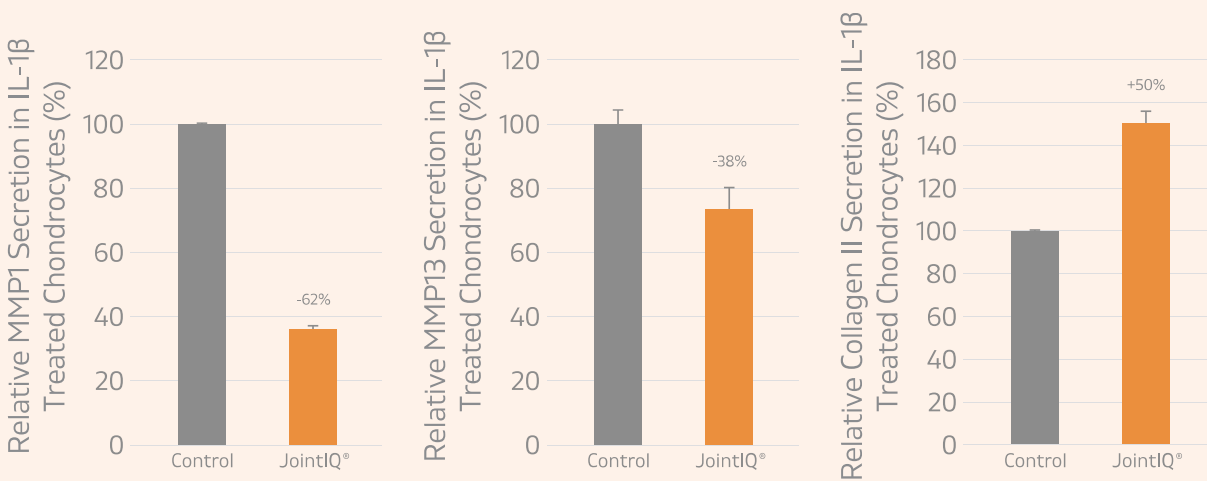
Relative Synthesis in IL-1 β Treated Chondrocytes



MMP-1 and MMP-13 are central to the regulation of collagen II breakdown in joints. MMP-1 primarily originates from the synovial cells lining the joints, while MMP-13 is produced by chondrocytes within the cartilage. JointIQ® has demonstrated to be involved in decreasing the synthesis of MMP-1 and MMP-13, working to maintain cartilage. Additionally supporting the chondrocytes by enhancing the synthesis of collagen II in cartilage.

EFFECTS OF JOINTIQ® ON MMPS AND TYPE II COLLAGEN SECRETION IN IL-1 β TREATED HUMAN CHONDROCYTES

Relative Secretion in IL-1 β Treated Chondrocytes



JointIQ® demonstrated to inhibit MMP-1 and MMP-13 secretion and increase collagen II secretion into IL-1 β treated chondrocyte culture medium.

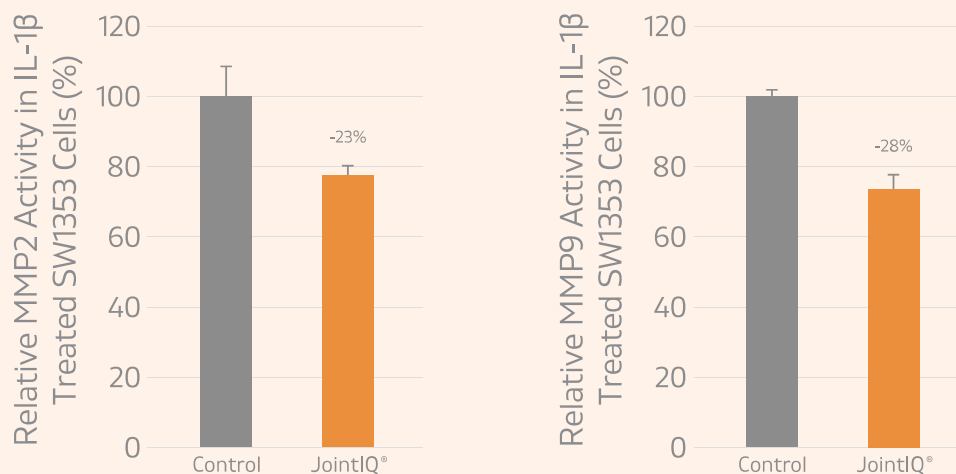
EFFECTS OF JOINTIQ® ON MMPS SYNTHESIS & SECRETION IN IL-1 β TREATED HUMAN CHONDROSARCOMA CELLS (SW1353 CELLS)



JointIQ® inhibited MMP-1 and MMP-13 synthesis and the release of MMP-1 and MMP-13 into chondrosarcoma cell culture medium.

EFFECTS OF JOINTIQ® ON MMPS ACTIVITY IN L-1β TREATED HUMAN CHONDROSARCOMA CELLS (SW1353 CELLS)

Relative Activity in IL-1β Treated SW1353 Cells



Matrix Metalloproteinases (MMPs) are initially produced as inactive proenzymes and become activated during their secretion either on the cell surface or outside the cell. This activation process involves the cleavage of a propeptide domain by various proteases. Under normal conditions, their ability to break down proteins is controlled by tissue inhibitors of metalloproteinases (TIMPs), which bind to MMPs, preventing them from functioning properly.

JointIQ® demonstrated to reduce the activities of MMP-2 and MMP-9 in chondrosarcoma cells treated with IL-1β.



DOSAGE
200MG JOINTIQ®

For questions and additional information please contact



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