ActivPower IRX

HUMAN KNOWLEDGE BASE • INGREDIENT SCIENCE

MSM for Human Joint, Skin & Everyday Vitality

A naturally occurring sulfur compound studied to support joint comfort, mobility, skin wellness, and normal inflammatory balance.

IRx-ZEUS® | Methylsulfonylmethane | Sulfur · Antioxidant

What Is MSM?

Methylsulfonylmethane (MSM) is a naturally occurring sulfur-containing compound found in small amounts in plants, animals, and certain foods. Sulfur is an important component of many biological structures, including connective-tissue proteins. MSM has become a commonly used ingredient in nutritional formulations for active lifestyles and is included in **IRx-ZEUS® for humans** to support mobility, physical function, and overall wellness.

MSM & Joint Health

The strongest body of research on MSM relates to joint comfort, mobility, and musculoskeletal wellness. Human clinical studies in individuals with age-related joint concerns have reported improvements in measures related to:

- Joint comfort
- Physical function
- Mobility
- Quality of life
- Exercise tolerance

A randomized, double-blind, placebo-controlled study by Kim et al. (2006) reported improvements in physical function and comfort, and reviews conclude MSM may support mobility and musculoskeletal wellness while encouraging larger studies (Butawan et al., 2017; Debbi et al., 2011).

Normal Inflammatory Balance

MSM has been studied for its interaction with pathways associated with the body's normal inflammatory and oxidative processes — including oxidative-stress signaling, NF-κB pathways, cytokine activity, and cellular

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antioxidant systems. A balanced description is that MSM supports normal inflammatory balance and healthy musculoskeletal function.

Skin Wellness

Skin health has emerged as another area of interest. In a randomized clinical trial, Muizzuddin et al. (2020) observed improvements in skin-appearance parameters following MSM supplementation, consistent with the role of sulfur-containing compounds in the normal structure of connective tissues, including those involved in healthy skin.

Seasonal, Tissue & Healthy-Aging Research

Barrager et al. (2002) reported improvements in certain measures of upper-respiratory comfort during seasonal environmental exposure, though further research is warranted. MSM has also been studied in relation to connective-tissue wellness and normal recovery after physical activity. There is no evidence MSM extends lifespan; its healthy-aging rationale rests on helping maintain mobility and activity.

Safety Profile

Published research generally reports MSM to be well tolerated when used appropriately. Reported side effects are typically mild and may include gastrointestinal discomfort, headache, or temporary bloating. Individuals with underlying conditions should consult a healthcare professional before use.

The ActivPower Perspective

ActivPower includes MSM in IRx-ZEUS® for humans as part of comprehensive formulations intended to support mobility, physical activity, skin wellness, and overall quality of life.

FEATURED IN

IRx-ZEUS® for Humans

Power Your Possible™

Selected References — Human Literature

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2. Debbi EM, Agar G, Fichman G, et al. Efficacy of methylsulfonylmethane supplementation on osteoarthritis of the knee: a randomized controlled study. *BMC Complement Altern Med.* 2011;11:50.
3. Butawan M, Benjamin RL, Bloomer RJ. Methylsulfonylmethane: applications and safety of a novel dietary supplement. *Nutrients.* 2017;9(3):290.
4. Muizzuddin N, Benjamin R, Bier ID, et al. Oral supplementation with methylsulfonylmethane improves signs of skin aging. *Nat Med J.* 2020;12(2).
5. Barrager E, Veltmann JR Jr, Schauss AG, Schiller RN. A multicentered, open-label trial on the safety and efficacy of methylsulfonylmethane in the management of seasonal allergic rhinitis. *J Altern Complement Med.* 2002;8(2):167–173.

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