



PATIENT & CAREGIVER EDUCATION

Superoxide Dismutase

This information describes the common uses of Superoxide Dismutase, how it works, and its possible side effects.

Tell your healthcare providers about any dietary supplements you're taking, such as herbs, vitamins, minerals, and natural or home remedies. This will help them manage your care and keep you safe.

What is it?

Superoxide dismutase supplements have not been shown to confer any health benefits.

Superoxide dismutase (SOD) is an enzyme found in all cells of the human body. It breaks down superoxide radicals, which are toxic to living cells and cause DNA mutations, into harmless components consisting of oxygen and hydrogen peroxide. The theory behind taking SOD as a supplement is that it will confer extra protection against cellular and DNA damage, but this does not hold true

because SOD cannot be absorbed into the bloodstream when taken orally.

What are the potential uses and benefits?

- **As an anti-aging supplement**

There is no research to back this claim.

- **To prevent bladder inflammation**

A few studies support the use of superoxide dismutase *injections* to prevent cystitis. More research is needed. No studies support the use of oral superoxide dismutase supplements for this use.

- **To reduce inflammation**

This claim has no supporting research.

- **To treat osteoarthritis**

One clinical trial supports the use of superoxide dismutase injections into the knee for osteoarthritis, but more research is needed. The long-term effectiveness and safety of such injections is not known.

- **To treat scleroderma**

No scientific evidence supports this use.

- **To treat urinary tract disorders**

There are no data to back this claim.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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