

Nitric Oxide

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nitric oxide

Nitric Oxide Latest News

In a study published in Science Translational Medicine, researchers found that a high dose of inhaled nitric oxide reduced drug-resistant *Pseudomonas* in a large-animal ICU model.

About Nitric Oxide

- It exists in a **gaseous state** and is composed of one nitrogen and one oxygen atom.
- It was first **prepared around 1620 by Jan Baptista van Helmont**, and studied in 1772 by Joseph Priestley.
- **Formation:** It is formed **through nitrogen oxidation**.
- It **can be created when lightning occurs**, uniting nitrogen and oxygen in the air, or commercially by burning ammonia.

Properties of Nitric Oxide

- It is a **colorless**, toxic gas.

- It is **noncombustible** but accelerates the burning of combustible material.
- It can be found in the **natural environment** and within parts of the human body.

Roles of Nitric Oxide

- It plays **important chemical signaling roles** in humans and animals, plus some medical uses.
- In animals, nitric **oxide transmits signals to cells in the cardiovascular**, nervous, and immune systems.
- The body synthesizes it from **the amino acid L-arginine** with the help of nitric oxide synthase.
- It helps **regulate blood pressure by dilating blood vessels** and acts as a neurotransmitter.
- **Impact on Environment:** Nitric oxide is **generated by automotive engines** and thermal power plants, making it a serious air pollutant.

Source: **TH**

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