



DATE: 22 JUNE 2026

1 Yoga (Source: PIB)

Yoga is an ancient Indian practice that aims at the harmonious development of the body, mind, and spirit.

- The word "Yoga" is derived from the Sanskrit root Yuj, meaning "to unite" or "to join."
- Originated in ancient India and finds references in the Vedas and Upanishads.
- Systematically codified by Patanjali in the Yoga Sutras.

Eight Limbs of Yoga (Ashtanga Yoga)

Yama	Moral Disciplines
Niyama	Physical Postures
Asana	Physical Postures
Pranayama	Breath Control
Pratyahara	Withdrawal of Senses
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Dharana	Concentration
Dhyana	Meditation
Samadhi	State of Spiritual Absorption



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International Day of Yoga

- Celebrated annually on 21 June.
- Declared by the United Nations General Assembly in 2014.
- First observed on 21 June 2015

2 Deuterium (Source: PIB)


Deuterium is a stable isotope of hydrogen, also called heavy hydrogen, with the chemical symbol D or ^2H

- Discovered by Harold C. Urey (1931)


Application

- **Nuclear Fusion:** Fuel in prototype fusion reactors (with tritium) ["mini sun" on Earth]
- **Heavy Water (D_2O):** Neutron moderator in heavy water-moderated fission reactors (e.g., India's CANDU)
- **Scientific Tracer:** Used in nuclear fusion research & nutrition assessments
- **Reaction Mechanism:** Studying organic reaction mechanisms (deuterium labeling)
- **Military/Industrial:** Nuclear weapons (tritium production), scientific fields

3 Use of Ammonia Gas (Source: The Hindu)




USE OF AMMONIA GAS




Ammonia (NH₃) gas is a colorless, pungent gas with a sharp smell. It is highly soluble in water and widely used in many industrial, agricultural and commercial applications.

1 FERTILIZERS




Ammonia is the key raw material for producing nitrogen fertilizers such as urea, ammonium nitrate and diammonium phosphate, which improve crop yield and food production.

2 REFRIGERATION SYSTEMS




Ammonia is widely used as a refrigerant in industrial and commercial refrigeration systems because of its high efficiency and low cost.

3 CHEMICAL MANUFACTURING



Ammonia is a building block for many chemicals including nitric acid, caprolactam, soda ash, hydrazine, and many others used in plastics, fibers, dyes, and pharmaceuticals.

4 CLEANING AND HOUSEHOLD USE




Dilute ammonia solution is used in household cleaners, glass cleaners and as a general-purpose cleaning agent.

NH₃
AMMONIA GAS


A versatile gas essential for food, health, industry and a cleaner future.

5 WASTE TREATMENT AND WATER CARE




Ammonia helps in neutralizing acidic wastewater and is used in biological treatment processes to control pH and support microbial activity.

6 PHARMACEUTICALS AND HEALTHCARE




Ammonia is used in the synthesis of active pharmaceutical ingredients (APIs) and in manufacturing certain medicines and medical products.


7 ENERGY AND FUTURE FUEL




Ammonia is an emerging clean energy carrier and potential fuel for power generation, shipping and industrial applications with low carbon emissions.




SAFE HANDLING IS ESSENTIAL
Ammonia gas is toxic and corrosive. Use proper equipment, ventilation and safety practices.




WEAR PPE



ENSURE VENTILATION



USE CHEMICAL RESISTANT GLOVES



FOLLOW SAFETY GUIDELINES