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Understanding the gases in our atmosphere is essential to appreciating how Earth sustains life and remains protected from various environmental hazards. Among these gases, ozone plays a particularly vital role in shielding us from the sun's harmful ultraviolet (UV) radiation. This article explores the composition of air, the significance of ozone, how it absorbs UV rays, and the broader implications for our planet's health.

The Composition of Air: A Brief Overview

Our atmosphere is a complex mixture of gases that envelops the Earth, providing the necessary conditions for life. It is composed primarily of:

Main Components of Air

- **Nitrogen (N₂):** About 78% of Earth's atmosphere. It is inert and plays a role in various biological processes.
- **Oxygen (O₂):** Approximately 21%. Essential for respiration in most living organisms.
- **Argon (Ar):** Roughly 0.93%. An inert noble gas with minimal biological impact.
- **Carbon Dioxide (CO₂):** Around 0.04%, vital for photosynthesis and climate regulation.

In addition to these main gases, the atmosphere contains trace amounts of other gases, including neon, helium, methane, and water vapor, which influence climate, weather, and atmospheric chemistry.