

Yellowstone Supervolcano

April 26, 2025 • vajiramandravi.com



Yellowstone Supervolcano Latest News

A “breathing” cap of magma has been discovered inside the Yellowstone supervolcano, and it might help determine when the volcano will next erupt, a new study has found.

About Yellowstone Supervolcano

- It lies **beneath Yellowstone National Park**, in the western **United States**.
- It is **one of the largest active volcanic systems** in the world.
- **It's a caldera** (a large crater formed by a major eruption) and an active supervolcanic system.
- The caldera measures 55 x 72 km (34 x 45 miles) in size.
- **Formation:**
 - The caldera formed when **pyroclastic material exploded** out of the volcano, partly **emptying the magma chamber causing the roof to collapse**.
 - When the roof collapsed over the magma chamber, it **created a bowl shaped depression in the ground**.

- **Three enormous eruptions occurred** at the Yellowstone hotspot 2.1 million, 1.3 million, and 640,000 years ago.
- **Two of these released so much material** that the area is **often referred to as a supervolcano**.
- **A supervolcano is a volcano that at one point in time erupted more than 1,000 cubic kilometers of deposits.**
- One **recent study estimates** that **another supervolcanic eruption at Yellowstone** would **blanket North America in ash**, and some areas close to the hotspot could be covered by more than a meter of debris.
- **Supervolcanoes can also have pronounced cooling effects** on the climate **for several years** after an eruption **because of the sulfur dioxide that is released** to the atmosphere.
 - The **sulfur dioxide forms aerosols that block incoming sunlight**.
 - Eventually, the sulfur dioxide from the eruption will wash out of the atmosphere, and the climate cooling effect will subside.

Yellowstone Supervolcano FAQs

Q1. Has the Yellowstone supervolcano ever erupted?

Ans. Three extremely large explosive eruptions have occurred at Yellowstone in the past 2.1 million years.

Q2. How was the Yellowstone Caldera formed?

Ans. Collapse after a massive eruption emptied the magma chamber

Q3. What qualifies a volcano to be classified as a “supervolcano”?

Ans. Eruption of more than 1,000 cubic kilometers of deposits

Source: [LS](#)

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