

Very Massive Stars

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Very Massive Stars Latest News

A new study suggests that 'Very massive stars' or 'very luminous stars' may be emitting a significantly higher amount of material during their lifespan and the immensity of these materials could be much higher than previously thought.

About Very Massive Stars

- These are those stars that have over 100 times the mass of the Sun.
- They have a much higher mass than the Sun, they use their nuclear fuel at a much higher rate, making their average lifespan only a few million years.
- Once their nuclear fuel is exhausted, very luminous stars collapse to form black holes.
- These stars produce stellar wind that is powerful enough to blow their own outer layer into space.

Importance of Very Massive Stars

- These stars, despite their short lifespan, still **influence the region around them.**

- Their powerful stellar winds can push newly formed elements into their surroundings. While most form new stars, elements key to life, such as carbon and oxygen, are also emitted.
- In spite of their distance from our Earth, they still bear an influence on it.
- These stars can be **considered the predecessor to black holes**. This occasionally leads to black hole binaries, where two black holes orbit around each other. These cause gravitational waves, which we then detect on Earth.

Source: IE

Source: <https://vajiramandravi.com/current-affairs/very-massive-stars/>

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