

Website calculates effects of various asteroid impacts

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The "Impact: Earth!" asteroid impact effects calculator uses several parameters of an asteroid impact to determine its effects on Earth. Image credit: Impact: Earth!

If you're curious about how big an asteroid needs to be to cause major destruction, the new "Impact: Earth!" asteroid impact calculator can tell you.

Researchers from Purdue University led by Jay Melosh have developed the [calculator](#), which builds on an earlier version that Melosh developed with colleagues at the University of Arizona. Melosh is also working on NASA's EPOXI mission, which flew to within 435 miles of the comet Hartley 2 last week.

Since asteroids can range in size from a few centimeters to hundreds of miles across, their impacts can have a wide variety of effects. While the

smaller asteroids harmlessly burn up in the [atmosphere](#), the larger ones - such as those the size of a small planet - can burn the entire [Earth](#).

The “Impact: Earth!” calculator allows users to input several parameters, such as the diameter, density, impact angle and impact velocity. The calculator then provides information on the impact effects, such as the size of a crater, the possibility of an earthquake or tsunami if it lands in the ocean, the energy before atmospheric entry, the frequency of such an [asteroid](#) impact, and global effects (for example, whether it will affect the length of a day, the tilt of the Earth's axis, or the Earth's orbit).

To use the calculator, visit <http://www.purdue.edu/impactearth>.

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