

Japan team uncovers thalidomide mystery

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Japanese scientists have uncovered how thalidomide led to deformities in children born to mothers taking the drug in the 1950s and 1960s, according to a study released Friday.

The researchers at the Tokyo Institute of Technology have now unlocked the mechanism by which [thalidomide](#) -- an anti-nausea drug given to [pregnant women](#) that turned into one of the worst pharmaceutical disasters in history -- triggered the deformities in developing fetuses.

"Though scientists have proposed a number of hypotheses, the drug's mechanism of action has been a mystery until now," the researchers said.

In the study published in the March 12 issue of the journal *Science*, the researchers concluded that thalidomide causes deformities in developing limbs by inhibiting production of a protein called cereblon, which in turn produces enzymes needed for limb development.

The study, which used chick and zebrafish embryos, may lead to the development of safer alternatives for thalidomide, which is now being used for treatments of some cancers and for [leprosy](#), the researchers said.

Thalidomide was launched in October 1957 and was sold in nearly 50 countries before being withdrawn little more than four years later after babies began showing the severe side effects of the drug.

Thalidomide, when taken by pregnant women, stunted the growth of

fetal arms and legs, and also put the [fetus](#) at risk of ear and eye defects, and various other internal defects, including those of the heart, kidneys and digestive tract.

Around 10,000 children around the world were born with deformities, such as the absence of arms and legs, as a result of thalidomide.

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