

Natural protection against radiation

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In the midst of ongoing concerns about radiation exposure from the Fukushima nuclear power plant in Japan, scientists are reporting that a substance similar to resveratrol — an antioxidant found in red wine, grapes and nuts — could protect against radiation sickness. The report appears in *ACS Medicinal Chemistry Letters*.

Michael Epperly, Kazunori Koide and colleagues explain that [radiation exposure](#), either from accidents (like recent events in [Japan](#)) or from radiation therapy for cancer, can make people sick. High doses can even cause death. The U.S. Food and Drug Administration is currently evaluating a drug for its ability to protect against radiation sickness, but it is difficult to make in large amounts, and the drug has side-effects that prevent its use for cancer patients. To overcome these disadvantages, the researchers studied whether resveratrol — a natural and healthful antioxidant found in many foods — could protect against radiation injuries.

They found that resveratrol protected cells in flasks but did not protect mice (stand-ins for humans in the laboratory) from radiation damage. However, the similar natural product called acetyl resveratrol did protect the irradiated mice. It also can be produced easily in large quantities and given orally. The authors caution that it has not yet been determined whether acetyl resveratrol is effective when orally administered.

More information: “The Use of 3,5,4’-Tri-O-acetylresveratrol as a Potential Prodrug for Resveratrol Protects Mice from gamma-Irradiation-Induced Death” *ACS Medicinal Chemistry Letters*.

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