

# Study in rats finds maternal intake of past-its-prime fish oil linked to newborn death

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Nearly 30 percent of newborn pups born to pregnant rats fed highly oxidized ("off") fish oil died within two days after birth a new study by researchers at the Liggins Institute at the University of Auckland in New Zealand finds. Mothers given "off" fish oil also had a higher incidence of insulin resistance at weaning compared with those given unoxidized supplements or water. The research is published in the *American Journal of Physiology—Regulatory, Integrative and Comparative Physiology*.

According to a press release about the research, "Omega-3 fatty acids are known to be chemically fragile or 'unstable,' and can easily break down when exposed to natural conditions such as light, heat and oxygen." In a previous study, the research team found 83 percent of [fish oil](#) supplements sold in New Zealand to be oxidized beyond internationally recommended levels. This is in line with other studies that have found highly oxidated [fish oil supplements](#) in North America, South Africa and Europe.

"Once we discovered so many supplements were oxidized, we decided to focus on the health effects of oxidized fish oil during and after pregnancy," research fellow Dr. Ben Albert, from the Liggins Institute at the University of Auckland said in the release. "We were surprised by the death rate," said study lead Professor Wayne Cutfield, also from the Liggins Institute. "We'd expected some negative health effects on the rat offspring, but we didn't expect them to die."

**More information:** Benjamin B. Albert et al. Oxidised fish oil in rat

pregnancy causes high newborn mortality and increases maternal insulin resistance, *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology* (2016). [DOI: 10.1152/ajpregu.00005.2016](https://doi.org/10.1152/ajpregu.00005.2016)

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