

Perinatal flavor learning and adaptation to being weaned: All the pig needs is smell

October 20 2011

Weaning can be a stressful time, but new research published in the Oct. 19 edition of the online journal *PLoS ONE* shows that the presence of familiar flavors in food, or even in the surrounding air, has positive effects on piglet growth, food uptake, and behavior upon weaning, suggesting reduced stress. In the study, pregnant sows were fed anise-flavored food for about two weeks before birth and three weeks after.

The piglets were then weaned and also exposed to the anise flavor, either through their food or air. Their resulting behavior and [cortisol levels](#) revealed that those exposed to the anise flavor both perinatally and post-weaning were less stressed than their non-flavor treated kin.

Furthermore, simply smelling the familiar flavor was sufficient to elicit a favorable response.

The principle of "flavor learning" based on the mother's diet has been well established in a variety of contexts, but previous work by the authors, led by Marije Oostindjer at Wageningen University in the Netherlands, showed practically no effect of flavor treatment applied only postnatally. According to Dr. Oostindjer, the results are "still elusive after many years of research, and at the same time the research has applied value as it can increase health and welfare of newly weaned [piglets](#)."

More information: Oostindjer M, Bolhuis JE, Simon K, van den Brand H, Kemp B (2011) Perinatal Flavour Learning and Adaptation to Being Weaned: All the Pig Needs Is Smell. *PLoS ONE* 6(10):

e25318.[doi:10.1371/journal.pone.0025318](https://doi.org/10.1371/journal.pone.0025318)

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Citation: Perinatal flavor learning and adaptation to being weaned: All the pig needs is smell (2011, October 20) retrieved 15 May 2024 from <https://phys.org/news/2011-10-perinatal-flavor-weaned-pig.html>

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