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A cross-sectional study of prevalence and risk factors for foot lesions and abnormal posture in lactating sows on commercial farms in England

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Abstract

A cross-sectional study of lactating sows in 71 commercial pig herds in England was carried out to estimate the prevalence of foot lesions and abnormal posture and investigate the associated risks. Observational data were collected on the standing posture, lesions on the hind left foot, and the pen the sow was housed in for 233 sows. The prevalence of foot lesions was 76.8% and 10.8% of lactating sows had abnormal posture. Sows housed on slatted floors during pregnancy had an associated increased risk of heel flaps but a reduced risk of toe erosion, compared with sows housed on solid concrete floors with bedding during pregnancy. There was an increased risk of abnormal posture in lactating sows housed on slatted floors during pregnancy compared with those housed on solid concrete floors with straw bedding during pregnancy. In addition, there was an increased risk of abnormal posture in lactating sows with wounds on the limbs and erosions on the toe and the heel/sole. The positive association between abnormal posture and foot lesions suggests that these lesions might be painful. Housing sows on solid floors during pregnancy might reduce the risk of abnormal posture, and certain foot lesions, in sows during lactation. However, posture is a less sensitive measure of lameness than gait, and the nature of the causal relationship between foot lesions and lameness requires further investigation.

Keywords: *animal welfare, cross-sectional study, foot lesions, housing system, lameness, standing posture*