Being able to stand up - consequences for the welfare of turkeys in transit

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When male turkeys are transported from farm to slaughter house they are usually confined in cages which are too low for them to stand up in. In this project we aimed to investigate how different cage heights affects the turkeys` ability to alter their body position and what effects this might have on their welfare using behavioural observations and physiological measures. Thirty-six Nicholas 300 male turkeys were tested singly in stationary cages of three different heights; 40 cm (Low), 55 cm (Medium) and 90 cm (High). Six birds were tested simultaneously each day with two birds in each height and the test lasted six hours. The birds were tested twice and the first test time they weighed 15.9 ± 0.2 kg (mean ± se) and the second test time 17.3 ± 0.2 kg. Filming of the birds were carried out while they were in the cages and continuous observations of lying, standing and low standing as well as instantaneous observations of stepping and turning were carried out. Blood samples from the wing veins were taken from half of the birds at the first test time and for the other half of the birds at the second test time after they had been in the cages for six hours. The levels of Creatine Kinase (CK), Aspartate aminotransferase (ASAT), lactate and heterophil: lymphocyte ratio (H: L) were measured from the blood samples. Birds in the Low height spent more time lying down than birds in Medium and High cages (Wilcoxon Signed Rank test; $P<0.001$) and also made less stepping ($P<0.0001$ and turning ($P<0.001$). In the Low cages the birds were not able to perform any normal standing, but made significantly more attempts to stand up than birds in Medium and High cages (Glim Mixed; $P<0.0001$). There was no significant difference between birds from the different treatments in their CK, ASAT and H: L levels but birds from the Medium cages had significantly lower lactate levels than birds from Low cages (Mann-Whitney; $P=0.001$). However, lactate levels in birds from High cages did not differ from the lactate levels in birds from Low cages. The main findings from the study were that the degree of physical confinement in the cages influenced the birds` behaviour and the low cages decreased the birds` possibility to move and change their position. Despite this only minor effects were found on the measured physiology.

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