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Besides welfare advantages of the compost bedded pack system (CBP) there could be a negative effect of the organic bedding on udder health. Our objectives were to evaluate the effects of a CBP on udder health compared to a free stall system (FS) with sand bedded cubicles. Within the same Danish organic farm, 330 multiparous cows were randomly allocated to CBP or FS. During the experimental period (EP), December 2012 to May 2013, proportions of cows with blinded teats were registered monthly at milking and the herd veterinarian's culture results from milk samples taken prior to treatment were collected. Test day somatic cell count (SCC) and registered mastitis treatments (MT) were recorded at cow level during the EP and the preceding year to allow effective adjustment for cow- and season-level factors. Data was analyzed with logistic regression and random coefficient linear models. The incidence risk of MT, proportion of cows with blinded teats and types of mastitis pathogens did not differ between groups (lowest P-value was 0.12). However, SCC in CBP-cows was 72,000 cells/mL higher in comparison to FS-cows ($P<0.001$). Dry matter content of the CBP-bedding through the EP was, however, lower than recommended. Our results indicate that implementing a CBP increases subclinical mastitis and probably mild cases of clinical mastitis, but does not affect the incidence risk of cases selected for medical treatment.