



# Extreme lying behaviors are associated with lameness in dairy cows

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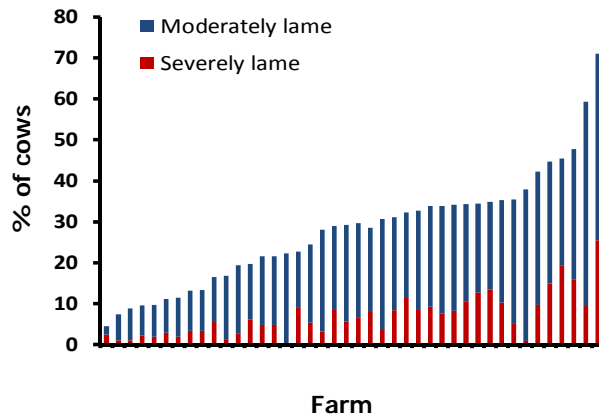
**Background:** Lameness is one of the most serious problems in the dairy industry. Lying behavior is thought to influence the risk of lameness, but this relationship is not well understood.

**Aims:** To document the prevalence of lameness in free-stall dairy herds in British Columbia, and to evaluate the relationship between lying behavior and lameness.

**Methods:**

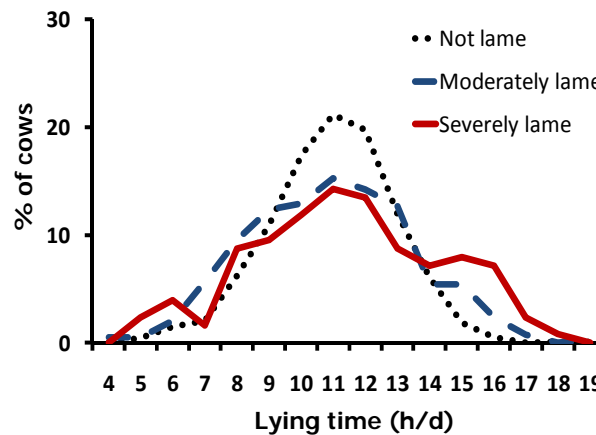
- Electronic data loggers recorded lying time (h/d) and duration of each lying event (min/bout) for 1942 cows from 42 farms
- Cows were gait scored using a 5-point Numerical Rating System (NRS), and categorized as not lame ( $NRS \leq 2$ ), moderately lame ( $NRS = 3$ ), or severely lame ( $NRS \geq 4$ )

## Lameness prevalence



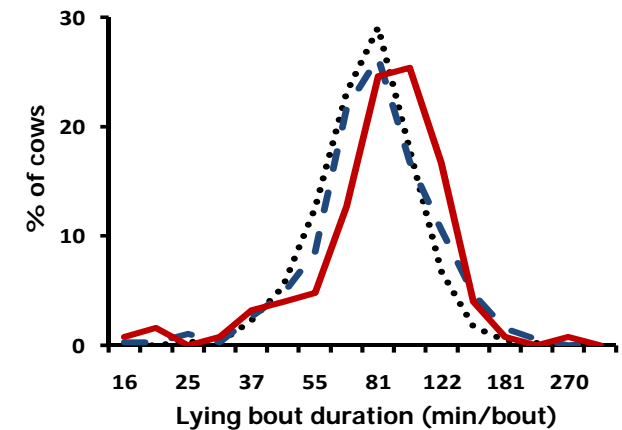
- 26% of cows were lame & 6% were severely lame
- Herd level prevalence for lameness ranged from 4 to 71%

## Lying time (h/d)



- Cows that lay down more than 14 h/d or less than 9 h/d were more likely to be lame

## Duration of lying bouts (min/bout)



- Cows with lying bouts averaging longer than 99 min were more likely to be lame

- Lameness prevalence varies greatly across farms
- Both high and low lying times, and long lying bouts, are associated with increased risk of lameness

