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Lameness in dry cows: a link to transition disease?

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Cows often become sick in the 'transition' period around calving, and many dairy cows are lame, but research to date has not considered how lameness may put cows at risk for transition cow diseases. In recent research at UBC we studied the development of lameness during the dry period, and the association between lameness and the risk of transition cow diseases like metritis. We followed a total of 455 cows from 6 commercial farms and assessed these cows for lameness weekly from 60 days before calving to 18 days after calving. The prevalence of cows starting the study as lame or sound were 45 and 55%, respectively. We found that many cows became lame in the 60 days before calving: 50% of cows that started our study as sound became lame during the pre-calving period. Of the cows that started the study lame, only 36% recovered during the pre-calving period. We assessed cow health routinely after calving, specifically monitoring subclinical ketosis, metritis, milk fever, retained placenta and displaced abomasum. We found that cows that were lame before calving were about 2 times more likely to become sick after calving compared to cows that were never lame during the same period. One reason for this association is that cows that were lame before calving spent less time feeding, and lower intakes before calving are known to increase the risk of disease after calving. Because we followed cows for a period of 11 weeks we were able to also assess their change in body condition. We found that cows that were obese 60 days before calving lost much more condition than cows in good body condition, and these obese cows were most likely to become ill after calving, regardless of lameness status. In summary, many cows become lame during the dry period, and lame cows are more likely to become ill after calving. Treating and preventing lameness before calving, and avoiding obese cows around dry-off, are strategies to consider for farms wanting to improve cow health during the otherwise high-risk transition period after calving.

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Picture caption: Dr Ruan Daros assessing the gait of dairy cow at the UBC Dairy Education and Research Centre in Agassiz, BC. Ruan's research has focused on how lameness impacts the risk of diseases around calving. His results indicate that lameness is a serious problem for dry cows, and these cases of lameness put cows at increased risk of transitions cow diseases after calving.