

Stroking helps calves develop a better relationship with humans and increases weight gain

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Regular stroking improves the human-animal relationship. Credit: Marc Decker

Gentle interactions improve the relationship between humans and animals. In a recent study published in the journal *Applied Animal Behaviour Science*, researchers at the Vetmeduni Vienna show that calves that were stroked by people early in their life gained weight more quickly than animals that were not stroked. This can be of commercial value for farmers, as cows produce more milk if they had a higher weight gain as calves.

In conventional dairy farming, calves are separated from their mothers on the day of their birth. They are then usually kept in single pens for a period of time before being housed in groups. The animals can only develop a good relationship with humans if their caretakers have regular and gentle interactions with them.

First author Stephanie Lürzel and her colleagues from the Institute of Animal Husbandry and Animal Welfare at the Vetmeduni Vienna studied 104 Holstein calves at a commercial dairy farm in eastern Germany. Around half of the animals were stroked three minutes a day for a period of 14 days after their birth, whereas the other half was not.

Lürzel and master's student Charlotte Münsch stroked the calves on the lower part of the neck. "In earlier studies our team found out that cows especially enjoy being stroked at this spot. The animals' heart rates even fall during stroking," says Lürzel.

Stroked calves gain weight more quickly

About 90 days after their birth, stroked calves weighed more than the control group. The gentle contact with humans therefore appears to have a direct influence on the animals' [weight gain](#). "A study from the year 2013 shows that cows that gained weight more quickly before weaning produce more milk. The daily weight gain of the stroked calves in our study was about 3 percent higher than that of the control group. This

would translate into around 50 kg more milk per cow per year," Lürzel explains.

Stroking improves the human-animal relationship

The researchers examined the quality of the human-animal relationship using the so-called avoidance distance test, which measures the distance at which a calf avoids a person approaching it from the front. Animals with less fear of humans show a lower avoidance distance. In animals that are afraid of people, the avoidance distance is higher.

The experiments showed that stroked calves do not avoid people as quickly as animals from the control group. The avoidance distance was lower among the stroked animals. "This test clearly shows that regular stroking has positive effects on the human-animal relationship," Lürzel points out. "In practice, I recommend animal caretakers to maintain regular gentle interactions with their animals. Even if there is not as much time as three minutes a day per calf, regular interactions still have positive effects for the animals."

Disbudding has negative effect on human-animal relationship

The results were different after calves were disbudded without anaesthesia about 32 days after their birth, as was the usual practice on the study farm. Disbudding is a common procedure at dairy farms: the horn buds are cauterized with a heated iron to destroy them before the horns can grow. After disbudding, the avoidance distances were higher in both groups than before the procedure. Furthermore, animals that had been stroked no longer differed from control calves. "Disbudding, a procedure that without anaesthesia involves enormous pain for the animal, apparently disturbs the good relationship with humans that had

been established previously through stroking. Several weeks after disbudding, however, the effect of stroking on the human-animal relationship was visible again," Lürzel explains.

Gentle interactions with farm animals recommended

On the basis of this and previous study results, ethologist Lürzel recommends gentle interactions with [calves](#): "Farm animals that experience regular interactions with people, either with a veterinarian during a routine check-up or with the farmer during the milking process, benefit from a good relationship with humans." Lürzel dismisses as untenable the opinion of some farmers that cattle should have fear of people in order to increase ease of handling. In the end, regular gentle interactions with the [animals](#) also have a positive effect on a farm's commercial success.

More information: Stephanie Lürzel et al. The influence of gentle interactions on avoidance distance towards humans, weight gain and physiological parameters in group-housed dairy calves, *Applied Animal Behaviour Science* (2015). [DOI: 10.1016/j.applanim.2015.09.004](https://doi.org/10.1016/j.applanim.2015.09.004)

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