

# Minimizing Emergency Calls from Freestall Housed Cows by Providing Adequate Lunge Space

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COOPERATIVE  
EXTENSION  
SERVICE



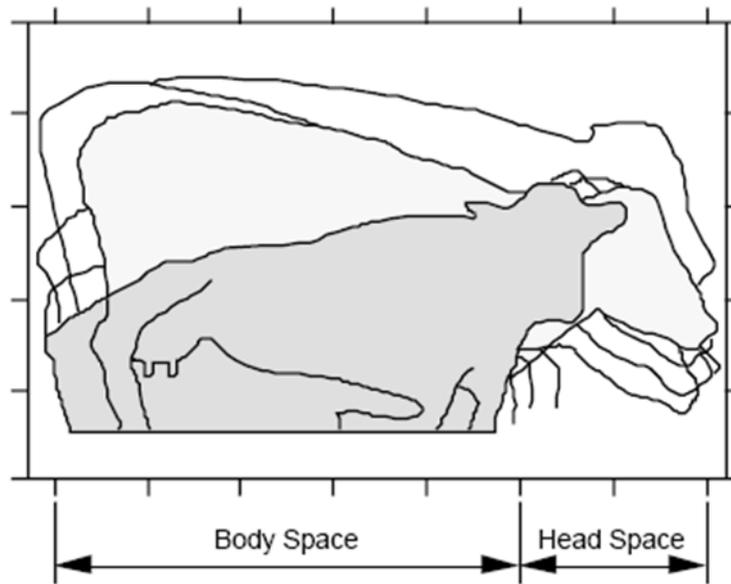
Most of us remember the medical emergency system commercials from the 1990's with the elderly lady calling out "Help, I've fallen and I can't get up." Would you ever receive these types of calls from within your freestall barns if your cows had some type of medical emergency system from which they could call you? Unfortunately, in many older freestall barns, these calls would probably be fairly frequent. Generally, cows prefer to lunge forward when rising from a resting position. Think about how a cow gets up when she is on pasture (Figure 1). Their behavior in freestalls should be similar to this. Forward lunge space is often blocked by walls or boards directly in front of the cows' heads (Figure 2). Thus, when obstructions are placed in front of the cows, there is no room for their heads to go during this natural rising motion. When cows do not have the ability to lunge forward, they may have difficulty rising from stalls. They may even become trapped against the wall while rising from the stall. Standing or lying diagonally in the stalls may also be a sign of cows searching for a way to preserve forward lunge space. Dog-sitting, where cows sit like dogs with weight placed on the rear end of their body and their front legs extended may indicate a lack of lunge space (Figure 3). Stalls that lack adequate lunge space are also characterized by overall poor stall usage and may contribute to perching (standing with front legs in the stall and rear legs in the alley).

Stalls must be long enough to allow cows to lunge forward when rising from the stall. Cows prefer to lunge forward rather than lunge to the side. To provide the cow with adequate forward lunge space, give 30 to 44" of space ahead of where their front knee is positioned while resting. Thus, closed front stalls (such as stalls that face an outside wall) should be at least 1 foot longer than open front stalls to preserve this lunge space.

If lunge space is a concern in your freestall barn, the key to solving this problem is to remove the obstacles to lunging (Figure 4). For head-to-head stalls or inside stalls, remove walls and boards that may impede lunging leaving at least 6" above the stall surface and 32" of vertical clearance. Depending on how the stall dividers are attached to the support structure, removing these obstacles may require moving posts or modifying where the stall dividers are attached. If the stalls are located on an outside wall, building a sloping adjustable sidewall curtain support along the outside wall will give the cows ample opportunity to lunge forward while still protecting cows from adverse weather. Another possible solution would be to use a stall divider that allows for side-lunging into the adjacent stall. In this case, the lower rail should be no higher than 11 inches above the stall surface and the upper rail should be no lower than 40 inches. Avoid piling bedding in front of the stall as this can unintentionally block lunge space. Some producers express concern that with open-front, head-to-head stalls, cows may attempt to go through the section between the stalls into the facing stall. This situation can lead to injury or cows restrained between the stalls. To remedy this problem, a deterrent bar, rope or strap may be placed 40 to 42" above the stall surface in 16 foot stalls (2 rows of head-to-head 8 foot stalls) or 34 to 36" above the stall surface in 18 foot stalls (2 rows of head-to-head 9 foot stalls). This deterrent may be wood, metal, galvanized pipe, nylon strapping, or rope.

So, the next time you are walking through your freestall barn, take a few minutes to watch how cows get up when rising from a resting position. Ask yourself whether this looks like a comfortable, painless, natural process. Do they ever "tell" you that this process is uncomfortable by not being able to get up out of the stall or by not wanting to use stalls in fear of another negative experience? If so, you may need to consider removing obstacles to lunging to ensure that your cows have adequate lunge space.

**Figure 1.** A diagram depicting the normal rising motion of a dairy cow (Irish and Merrill, 1986).



**Figure 2.** Forward lunge space is often blocked by walls or boards placed in front of the cows' resting space.



**Figure 3.** Dog-sitting may indicate a lack of lunge space or other freestall design problems.



**Figure 4.** Lunge space can be preserved by keeping the area in front of the cows' heads free of obstructions.

