

## 8 REASONS WHY VACCINES FAIL

1. **Pickup-itis** – the vaccine after purchase remained in the pickup truck. It was never administered to the animals.
2. **Thrifty-itis** – the modified live vaccine bottle still has a few doses left in it. We can save it until the next animals need to be vaccinated. Modified live vaccines lose their effectiveness in only a few hours after being reconstituted. **They cannot be saved for later use.** Even killed vaccines that do not require mixing are sensitive to storage conditions. They must be stored according to label instructions [Store in the dark, 35°-45°, do not freeze]
3. **Sunshine-itis** – the bottle of vaccine after partial use was set down on a barn windowsill. Exposure to strong sunlight and heat destroyed all of the vaccine's ability to stimulate an immune response in an animal. Summer sunlight and heat on a truck tailgate, or up on a concrete wall where the heifers can't reach while we are vaccinating, will ruin vaccines in less than an hour. Accidental exposure to a disinfectant like alcohol destroys the live organisms in vaccines, too.
4. **Too-much-water-itis** – The directions for reconstituting say to add only water that is supplied to the powder. But, if I add extra water, the bottle will vaccinate several additional animals. To be effective, vaccines depend on an accurate dose of the antigens.
5. **Already-had-it-itis** – the animals were already exposed naturally to the disease before the vaccination. Knowing the risk of exposure and timing the vaccination are important to insure controlled immunity.
6. **I can't-be-bothered-to-give-the-booster-injection-itis** – Doc recommended giving two doses two to four weeks apart. But we say, “All the heifers look healthy so they are probably immune to whatever heifers get.”

Not true! Most vaccines require a first injection to promote strong immunity in naive animals. Once the initial reaction is completed in two

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to four weeks the booster injection of vaccine creates a stronger and longer lasting immunity.

7. **One-vaccine-fits-all-itis** – This vaccine seems to have prevented (fill in illness). Maybe it will work to prevent (fill in different illness). Wrong! It is true that a few vaccines do cross protect against more than one pathogen. But there are many different kinds of pathogens. Matching the vaccine and the pathogen is the best insurance for effectiveness.
8. **Not-enough-to-eat- itis** – When the nutritional needs of calves are not being met, the supplies of both energy and protein available to respond to the vaccine are too low.

For example, when the environmental temperature drops to 20° F, a 90 pound calf must drink 6 quarts daily of 20-20 milk replacer mixed at 15% solids (10 ounces makes 2 quarts) to sustain a one-pound-a-day rate of gain needed for a strong immune response to vaccination.

Healthy, well-fed calves have plenty of nutritional reserves to make the cells needed to build the immunity that we want after they have been vaccinated.