

Cleaning and Disinfection on the Farm

BIRTH ASSISTANCE EQUIPMENT



Proper cleaning and disinfection of reusable birth assistance equipment is critical to prevent the potential spread of disease-causing organisms to animals and people.

Follow these tips to minimize disease risks from birth assistance equipment on your operation.

WHY IS BIRTH ASSISTANCE EQUIPMENT A DISEASE RISK FOR ANIMALS AND PEOPLE?

Cleaning and disinfecting reusable birthing equipment (e.g., obstetrical (“OB”) chains or straps, mechanical pullers, and hooks) between each use is critical to prevent disease spread between animals or from animals to people.

Contamination of these items with birthing materials, blood, urine, feces, during deliveries can spread disease to other animals, areas of the operation or even to you or other people.

Diseases such as Q fever, chlamydiosis, leptospirosis, and brucellosis are a few examples. Work with your veterinarian to learn about the most important diseases for your herd or flock, and what products to use for cleaning and disinfection.

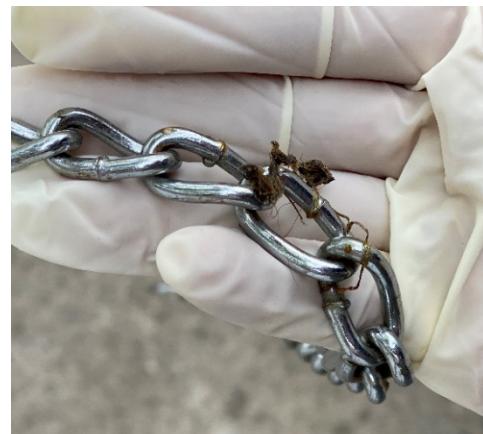


Photo from Renée Dewell, Iowa State University

DISINFECTION CHALLENGES WITH BIRTH ASSISTANCE EQUIPMENT

Some types of birthing assistance equipment can cause potential disinfection challenges.

- Stainless steel equipment (e.g., obstetrical chains) is generally easier to clean and disinfect than nylon straps; however, careful attention is needed for crevices and inner loopings.
 - Some disinfectant products (e.g., some oxidizing agents, such as peracetic acid), can be corrosive to steel.
 - If used to disinfect birthing equipment, items must be rinsed well with water after the process.
 - If steel equipment isn't rust resistant, it should be dried thoroughly with a clean cloth or paper towels to prevent rusting.
- Nylon obstetrical straps can be challenging to clean and disinfect because the weaving of the material can hide debris and organisms.
 - Soaking in warm soap water and rinsing well should allow removal of much of the material.
 - Select a disinfectant product that will not damage nylon.
 - Soak the straps in properly diluted disinfectant solution for the full contact time recommended to ensure best results.

- Items made of cotton (such as cotton rope) are not recommended for birthing equipment use.
 - Cotton fibers are hard to clean and disinfect thoroughly because the material can absorb birthing fluids and other contaminants.
 - If you do use cotton materials, refer to the “Laundry C&D tip sheet” at <https://www.cfsph.iastate.edu/biosecurity-resource/cleaning-disinfection> for helpful guidance.

WASHING BIRTH ASSISTANCE EQUIPMENT

- Most equipment can be washed with dishwashing detergent that includes degreasers and warm water.
- Whenever possible, wear gloves (disposable or rubber) when cleaning and washing equipment.
- Remove as much visible contamination as possible before placing equipment in the soapy water.
- Lather and scrub all surfaces until all visible contamination is removed. Soaking may be needed to loosen and remove all hair, oils, birthing materials, and other residue.
- Once all visible contamination is removed and equipment has been washed with soapy water, rinse all items with plenty of clean water.



DISINFECTING BIRTH ASSISTANCE EQUIPMENT

- Work with an animal health professional, such as your veterinarian or extension personnel, to select the best disinfectant to fight diseases of concern on your operation.
- After washing and rinsing equipment to clean it, it is important to disinfect. The disinfection step helps kill potential disease-causing bacteria and viruses that even the best cleaning steps can leave behind.
- Make sure you follow recommendations for any safety gear needed, such as gloves, masks or goggles. Read and fully understand the disinfectant directions before beginning the disinfection process.
- Dilute bleach solutions may be used for some items. A 1:32 solution (i.e., ½ cup bleach to 1 gallon of water) is a common dilution for general disinfection purposes. If resistant organisms, such as *Coxiella burnetii* (i.e., agent causing Q fever) are suspected, a stronger solution of 1:10 (i.e., 1-1/2 cups bleach to 1 gallon water) may be needed.
- A disinfectant solution must have time to do its job. Be sure items are soaked or covered by the disinfectant solution for the entire recommended contact time. After disinfecting, rinse all surfaces with plenty of clean water, and allow the item to dry thoroughly.



Photos from Renée Dewell, Iowa State University

- Some steel chains can be disinfected (after cleaning thoroughly) by baking in a brown paper bag in a 400°F oven for 30 minutes.
- Once dry, store clean and disinfected items in a container or area that will prevent contamination before its next use.
- Make sure to immediately clean and disinfect sinks and any equipment (e.g., brushes, buckets, drying towels) used to clean and disinfect the birthing equipment.

WASH HANDS AFTER HANDLING EQUIPMENT

- Hands can become contaminated from handling birth assistance equipment. Many reproductive diseases of ruminants can infect people. Always wash your hands thoroughly with soap and warm water after handling birth assistance equipment. Whenever possible, wear protective gloves.



Photo from Renée Dewell, Iowa State University

Acknowledgement: Development of this material was made possible through support from the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number AWD-021794-00001 through the North Central Region SARE program under project number ENC19-176. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture. Iowa State University is an equal opportunity provider. For the full non-discrimination statement or accommodation inquiries, go to www.extension.iastate.edu/diversity/ext.