

Questions and Answers about Preemie Pouch® and the Treatment and Care of Premature Infants with Ostomies.

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About the Authors:

Jolie Blankenship and Katie Hudson are the ET nurses at the Medical College of Virginia Hospitals in Richmond, Virginia. MCVH is a 902 bed teaching facility initially established in 1830. The facility has a Level 1 trauma center and a nationally recognized Level 3 neonatal intensive care unit. MCVH is one of the 60 specialized cancer centers officially designated by the National Cancer Institute in the United States. The facility boasts many rural and satellite outreach treatment centers for outpatient care throughout the Commonwealth of Virginia. MCVH was recently named one of the best hospitals in America.

Jolie and Katie collectively have over 32 years experience as ET nurses caring for adult and pediatric patients with ostomies. Jolie, Katie and neonatal nurses in other hospitals identified several problems with the treatment and care of neonates with ostomies. This led to the development, by Incutec Inc., of a product, Preemie Pouch, that has saved time, money and frustration in dealing with neonatal ostomies.

Preemie Pouch was developed based on needs that were not already being met by other pediatric ostomy pouches. The barrier sizes available were too large for the smallest of premature infants requiring ostomy surgery. These are the infants with whom neonatal and ET nurses have spent endless hours struggling to devise a workable option for ostomy management. Many alterations were required to fit the barriers around stomas that were in close proximity to an abdominal wound, suture line, mucous fistula or surgical drainage tube. Some of the barriers were thick, bulky and did not mold well to the skin. Some pouches only had adhesive backing requiring the addition of a pectin-based barrier. With these problems in mind we set out to help develop Preemie Pouch.

In developing the new product skin areas available for barrier adherence around the ostomy were measured. The proximity of the stoma to the groin folds and wounds was evaluated. A list of desirable features was then developed: (i) volume capacities, (ii) the ability to trim the barrier if needed, (iii) a thin and flexible barrier that did not readily erode, and (iv) the most important feature of all, a barrier that had minimal effect on fragile, premature skin. The result is Preemie Pouch.

The most common questions that have been raised since the introduction of Preemie Pouch in February, 1995 are addressed in the following questions and answers.

How long can Preemie Pouch stay on before it should be changed?

Answer: As with any ostomy pouch, wear time varies according to each individual. If you have a hospital protocol, you should first consider its recommendations. Most pouches, if properly applied, can stay on 2 days. Factors affecting adherence may be the amount of stoma effluent, frequency of emptying, the child's activity level and the skin condition prior to application. Because Preemie Pouch's barrier is flexible and less susceptible to caustic effluent, wear time may be increased.

How is the skin of premature infants different from that of full-term babies?

Answer: The dermis in premature infants is not well anchored to the epidermis. It is therefore more susceptible to epidermal stripping from adhesive tapes applied directly to the skin. This situation improves during the first 2 weeks of life. The skin is also much more permeable than that of full-term infants, causing it to absorb topical agents more quickly. This can cause toxic levels of chemicals to be absorbed. Such chemicals may be used in commercial cleansers, creams and products routinely used on children and adults, but totally inappropriate for use in premature infants. Preemie Pouch's barrier contains no toxic chemicals or strong adhesives that can damage premature infant skin, if used as recommended.

Can skin barriers, paste, powder or adhesive removers (solvents) be used in addition to Preemie Pouch?

Answer: Generally, the less products you use on the skin, the better. If you are able to fit the pouch close to the stoma, leaving 1/16" clearance, you may not need to use any additional products. However, if the skin surface is irregular due to scarring, sutures or weight gain, a small amount of ostomy paste may be required. If the stools are liquid or the stoma is located in the small intestine, paste may be used for extra protection. Ostomy powders are used to treat skin irritation. Benzoin and adhesive removers are not recommended for neonates. Mineral oil and cotton tips can be used for pouch removal. However, Preemie Pouch's barrier is usually easily removed with no residue left on the skin.

What about application technique of Preemie Pouch?

Answer: Before applying Preemie Pouch, the skin should be clean and dry. Select a barrier size appropriate for the size of the infant and the type of ostomy. High output ostomies and lively infants require a larger barrier size. There should be at least 1/2" of barrier remaining after the stomal opening has been made. Preemie Pouch should be applied with the end towards the leg, so the end comes outside of the diaper or drains down towards the bed when no diaper is worn. Be sure to smooth wrinkled areas before application. Warm the barrier in your hands and hold it in place for up to 1 minute to insure good skin contact.

Why wouldn't an adult or other pediatric pouch work just as well as one designed for premature infants, such as Premie Pouch?

Answer: The barrier size of other pouches is generally the biggest problem in managing children under 2 pounds. Most other pouches are sealed to the barrier and cannot be trimmed back to less than 2 1/2". Premie Pouch is available in five barrier sizes starting with a 1 1/2" round barrier. Barriers with pre-cut openings are available on all Premie Pouch barrier sizes, but the barriers with no starter hole add flexibility to the caregiver by being able to offset the opening from the center. Premie Pouch requires no other barrier applications or alterations because it is available in so many sizes. There is a size and shape that will fit them all. The "Daisy" design also helps to give greater adherence or protection where it is really needed. It conforms well in the groin area, yet can be trimmed at a wound edge or site of a drain tube without sacrificing pouch adherence.

Is pouch sterility important?

Answer: Let's face it, we are trying to contain stool. Stool is far from sterile. Often the stoma may be close to a wound, and most babies experience an occasional leak that heads right into the wound! Clean technique is recommended for ostomy care.

What about the length and width of the pouch? Pediatric pouches are shorter and/or wider.

Answer: Pediatric pouches were developed for full-term infants. Shorter pouches keep stool closer to the stoma, where it constantly "bathes" the barrier. This can cause leakage due to barrier meltdown or undermining if the stoma is flush with the skin. Premie Pouch keeps the stool further away from the stoma and it is usually not necessary to remove the diaper to empty it. Despite its narrow width, Premie Pouch will accommodate volumes from 50 cc to a maximum of 150 cc. Cleaning and draining the pouch can be accomplished by use of a catheter tip syringe.

Premie Pouch has made a very positive impact in the care of neonates with ostomies. The caring, concern and genuine interest demonstrated by everyone at Incutech Inc. has made life for neonates and their caregivers a lot easier.

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