Steps to Umbilical Hernia Repair (reducible)

1. The animal is placed on a V trough to avoid aspiration into the lungs. The surgeon must prep the surgical site with alternating chlorhexidine and iodine. Starting at area of incision and working outwards. An elliptical cut is made into a drape and placed over the surgical site to narrow down the area of surgery.

2. The hernia is held in the less dominant hand and a blade is held in the dominant hand and an elliptical incision is made on the skin around the hernial mass, avoiding cutting the teats. If the animal is male then a Y incision must be made to avoid cutting the penis and prepuce.

3. Once the skin is cut, a blunt dissection is made through the subcutaneous layers until the hernial sac is seen.

4. During this time, there may be bleeding of blood vessels and hemostats are used to seal the vessels. Anesthetists are to always check the patient for temperature, pulse, capillary refill time and respiration every five minutes or as often as possible. Jaw tone and blinking response is also checked at this time.

5. Once the sac has been visualized a cautious snip is made into the sac and the peritoneal layer. Contents of the abdomen should be seen. The surgeon should carefully introduce a finger into hole to ensure that there are no adhesions between sac and viscera.

6. Tissue forceps are clamped on either side of the elliptical incision site and are pulled upwards to ensure that no abdominal contents are nicked. The sac is then cut as close to the body wall as possible without cutting abdominal contents to cause peritonitis.

7. The hands of the surgeon should be washed with sterile saline to remove powder from the gloves that may cause adhesions after closure. Once again, the surgeon then introduces the index finger into the abdomen to check for any adhesion to the abdominal wall.

8. Once there are no adhesions, clamps are used to pull the body wall away from abdominal contents to prevent them from being sutured. The abdominal muscles are sutured using nylon suture and horizontal mattress interrupted pattern but are not tied as yet. When all sutures are made, the untied strings are all pulled up to make sure there was no suturing of abdominal contents and that there are no adhesions. The subcutaneous layer is then closed with the simple continuous pattern using cat gut and the skin is closed with polypropelene using the horizontal mattress interrupted pattern. The outermost sutures are not to be cut to long to avoid attracting bacteria when the animal lies down.

9. In males, the circumference of the inner preputial opening must be checked to make sure it was not sutured, iatrogenically causing phimosis. The surgical site is then cleaned with chlorihexidine to clean off blood from the skin and minimize bacterial contamination.