

CORRECTING UTERINE INVERSION

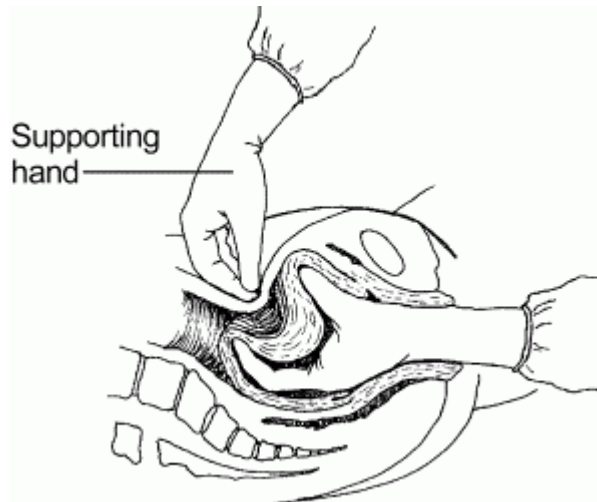
- Review for indications.
- Review general care principles (page [C-17](#)) and start an IV infusion (page [C-21](#)).
- Give pethidine and diazepam IV slowly (do not mix in the same syringe). If necessary, use general anaesthesia.
- Thoroughly cleanse the inverted uterus using antiseptic solution.
- Apply compression to the inverted uterus with a moist, warm sterile towel until ready for the procedure.

MANUAL CORRECTION

- Wearing high-level disinfected gloves, grasp the uterus and push it through the cervix towards the umbilicus to its normal position, using the other hand to support the uterus ([Fig P-52](#)). If the placenta is still attached, perform manual removal after correction.

It is important that the part of the uterus that came out last (the part closest to the cervix) goes in first.

FIGURE P-52 **Manual replacement of the inverted uterus**



- If correction is not achieved, proceed to hydrostatic correction (page [P-92](#)).

HYDROSTATIC CORRECTION

- Place the woman in deep Trendelenburg position (lower her head about 0.5 metres below the level of the perineum).
- Prepare a high-level disinfected douche system with large nozzle and long tubing (2 metres) and a warm water reservoir (3 to 5 L).

Note: This can also be done using warmed normal saline and an ordinary IV administration set.

- Identify the posterior fornix. This is easily done in partial inversion when the inverted uterus is still in the vagina. In other cases, the posterior fornix is recognized by where the rugose vagina becomes the smooth vagina.
- Place the nozzle of the douche in the posterior fornix.
- At the same time, with the other hand hold the labia sealed over the nozzle and use the forearm to support the nozzle.
- Ask an assistant to start the douche with full pressure (raise the water reservoir to at least 2 metres). Water will distend the posterior fornix of the vagina gradually so that it stretches.

This causes the circumference of the orifice to increase, relieves cervical constriction and results in correction of the inversion.

MANUAL CORRECTION UNDER GENERAL ANAESTHESIA

- If hydrostatic correction is not successful, try manual repositioning under general anaesthesia using halothane. Halothane is recommended because it relaxes the uterus.
- Grasp the inverted uterus and push it through the cervix in the direction of the umbilicus to its normal anatomic position ([Fig P-52](#), page P-91). If the placenta is still attached, perform a manual removal after correction.

COMBINED ABDOMINAL-VAGINAL CORRECTION

Abdominal-vaginal correction under general anaesthesia may be required if the above measures fail.

- Review for indications.
- Review operative care principles (page [C-47](#)).
- Open the abdomen:
 - Make a midline vertical incision below the umbilicus to the pubic hair, through the skin and to the level of the fascia;
 - Make a 2–3 cm vertical incision in the fascia;
 - Hold the fascial edge with forceps and lengthen the incision up and down using scissors;
 - Use fingers or scissors to separate the rectus muscles (abdominal wall muscles);
 - Use fingers or scissors to make an opening in the peritoneum near the umbilicus. Use scissors to lengthen the incision up and down. Carefully, to prevent bladder injury, use scissors to separate layers and open the lower part of the peritoneum;
 - Place a bladder retractor over the pubic bone and place self-retaining abdominal retractors.
- Dilate the constricting cervical ring digitally.
- Place a tenaculum through the cervical ring and grasp the inverted fundus.
- Apply gentle continuous traction to the fundus while an assistant attempts manual correction vaginally.
- If traction fails, incise the constricting cervical ring posteriorly (where the incision is least likely to injure the bladder or uterine vessels) and repeat digital dilatation, tenaculum and traction steps.
- If correction is successful, close the abdomen:
 - Make sure there is no bleeding. Use a sponge to remove any clots inside the abdomen;
 - Close the fascia with continuous 0 chromic catgut (or polyglycolic) suture;
Note: There is no need to close the bladder peritoneum or the abdominal peritoneum.
 - If there are signs of infection, pack the subcutaneous tissue with gauze and place loose 0 catgut (or polyglycolic) sutures. Close the skin with a delayed closure after the infection has cleared;
 - If there are no signs of infection, close the skin with vertical mattress sutures of 3-0 nylon (or silk) and apply a sterile dressing.

POST-PROCEDURE CARE

- Once the inversion is corrected, infuse oxytocin 20 units in 500 mL IV fluids (normal saline or Ringer's lactate) at 10 drops per minute:
 - If haemorrhage is suspected, increase the infusion rate to 60 drops per minute;
 - If the uterus does not contract after oxytocin, give ergometrine 0.2 mg or prostaglandins ([Table S-8](#), page S-28).
- Give a single dose of prophylactic antibiotics after correcting the inverted uterus (page [C-35](#)):
 - ampicillin 2 g IV PLUS metronidazole 500 mg IV;
 - OR cefazolin 1 g IV PLUS metronidazole 500 mg IV.
- If combined abdominal-vaginal correction was used, see postoperative care principles (page [C-52](#)).

- If there are signs of infection or the woman currently has fever, give a combination of antibiotics until she is fever-free for 48 hours (page [C-35](#)):
 - ampicillin 2 g IV every 6 hours;
 - PLUS gentamicin 5 mg/kg body weight IV every 24 hours;
 - PLUS metronidazole 500 mg IV every 8 hours.
- Give appropriate analgesic drugs (page [C-37](#)).

World Health Organization (2000). Managing Complications in Pregnancy and Childbirth A Guide for Midwives and Doctors, Department of Reproductive Health and Research, World Health Organization.

http://www.reproline.jhu.edu/english/2mnh/2mcpc/3_procedures/p-091.html