**Buhner Method.**The objective is to insert a loop of tape that in effect simulates the action of the constrictor vestibuli muscle. Thus it can be used for correction of mild pneumovagina as well as retention of the replaced vagina. The technique is not to be confused with superficial purse-string sutures. The special equipment needed includes a Buhner needle with the eye in the point and Buhner suture tape (tubular woven, flattened, non- absorbable synthetic material).

After onset of epidural anesthesia, the perineal region is scrubbed and disinfected. A horizontal skin incision approximately 1 cm long is made midway between the anus and the dorsal commissure of the vulva. Another horizontal incision approximately 1.5 cm long is made at the same level as the ventral commissure of the vulva (cranial to the normally projecting ventral commissure).

The Buhner needle is introduced through the lower incision with the curvature directed in a lateral-medial direction. With one hand in the vagina for guidance, the needle is forced as far cranially as possible and then dorsally through the dorsal incision until the needle eye is well exposed.

An antibiotic-soaked Buhner suture tape approximately 40 cm long is threaded through the needle. While one end of the tape is held, the needle is withdrawn ventrally and the tape is removed from the eye of the needle. The needle without tape is introduced into the ventral incision and is forced dorsally on the opposite side, again emerging from the dorsal incision. The tape is again threaded into the eye of the needle, and the needle is withdrawn ventrally through the ventral incision.

Tension is applied to each end of the tape, thus forcing the dorsal loop beneath the skin of the upper incision. The suture is tightened to permit entry of two or three fingers into the vulva, and a square knot or bow knot is used to maintain closure. The constriction thus formed is circular. When the square knot is used, it will actually be under the skin. The incisions may or may not be closed with simple interrupted sutures, depending on the individual surgeon's preference.

If the cow is close to calving (within 30 days), the bow knot is performed. Prior to calving this technique has disadvantages because extremely close observation of the patient and removal of the tape are necessary just prior to or at the time of parturition. The knot can be united and gentle digital dilatation of the vulva will reduce tension.

Source: <http://www.developmentvet.aun.edu.eg/animal%20surgery/se5.htm>