



1. Dorsal nerve of clitoris
2. Posterior labial nerves
3. Branches of perineal nerve (Superficial; Deep)
4. Pudendal nerve in pudendal (Alcock's) canal (dissected)
5. Perineal nerve
6. Inferior anal (rectal) nerves

Comment: The pudendal nerve (somatic nerve) innervates the skin and skeletal muscle of the female perineum and external genitalia. It arises from the ventral rami of S2, S3, and S4 spinal cord levels. After emerging from the pudendal (Alcock's) canal, the pudendal nerve divides into inferior anal (rectal) nerves, the perineal nerve, and the dorsal nerve of the clitoris.

Parasympathetic fibers arise from the S2-4 levels; travel in pelvic splanchnic nerves to the inferior hypogastric plexus and uterovaginal plexus; and stimulate vaginal secretions, erection of the clitoris, and engorgement of the bulbs of the vestibule (vasodilation of the arteries supplying the erectile tissue of the clitoris and vestibular bulb).

Clinical: In some cases it is necessary to achieve local anesthesia of the perineal area, and the pudendal nerve may be blocked selectively by infiltrating a local anesthetic into the region of the pudendal canal, thus numbing the S2-4 somatic region (skin and skeletal muscle) of the perineum.