

Micturition is a process by which urine is voided from the urinary bladder. It is a reflex process. However, ability to control micturition develops from 2 years as the central nervous system develops. The functional anatomy and nerve supply of the urinary bladder are essential for the process of micturition. The process of micturition is regulated by the nervous system and the muscles of the bladder and urethra. The bladder can store around 350-400ml of urine before it expels it out.

In infants, accumulation of urine in the bladder activates stretch receptors in the bladder wall, generating sensory (afferent) impulses that are transmitted to the spinal cord, where the spinal reflex is initiated. This stimulates involuntary contraction of the detrusor muscle and relaxation of the internal urethral sphincter, and expels urine from the bladder: this is known as micturition, urination or voiding of urine.

When bladder control is established, the micturition reflex is still stimulated but sensory impulses also pass upwards to the brain and there is awareness of the need to pass urine as the bladder fills. By learned and conscious effort, contraction of the external urethral sphincter and muscles of the pelvic floor can inhibit micturition until it is convenient to pass urine.

