



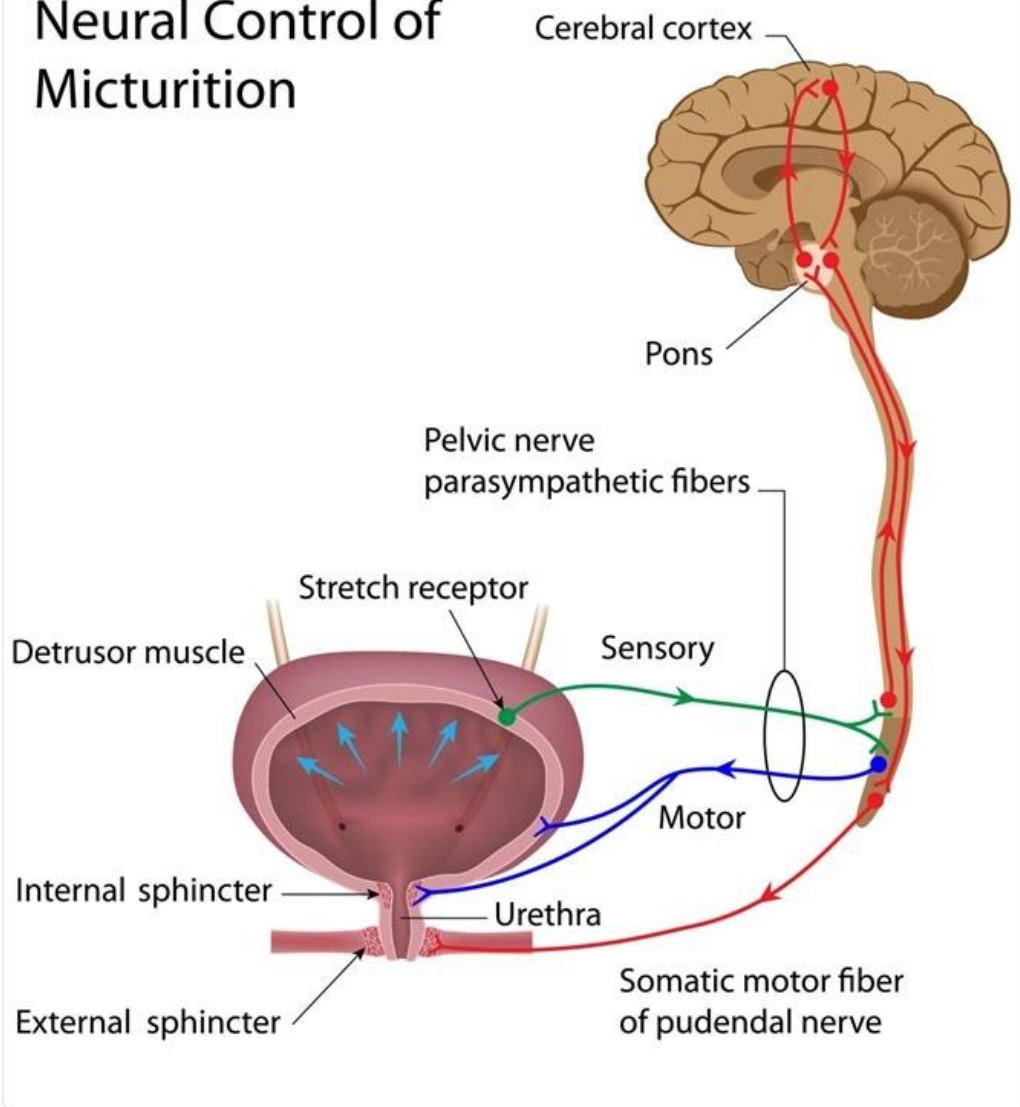
WRITE A SHORT NOTE ON MICTURITION

Micturition or urination is the process of expelling urine from the bladder.

This act is also known as voiding of the bladder.

- The excretory system in humans includes a pair of kidneys, two ureters, a urinary bladder and a urethra.
- The kidneys filter the urine and it is transported to the urinary bladder via the ureters where it is stored till its expulsion.

Neural Control of Micturition



- The process of micturition is regulated by the nervous system and the muscles of the bladder and urethra.
- The urinary bladder can store around 350-400ml of urine before it expels it out.



Stages of Micturition

The urinary bladder has two distinct stages or phases:

1. Resting or filling stage
2. Voiding stage

. Resting or filling stage

- It is in this phase of the bladder that the urine is transported from the kidneys via the ureters into the bladder.
- The ureters are thin muscular tubes that arise from each of the kidneys and extend downwards where they enter the bladder obliquely.
- The oblique placement of the ureters in the bladder wall serves a very important function.
- The opening of the ureter into the urinary bladder is not guarded by any sphincter or muscle.
- Therefore, this oblique nature of opening prevents the urine from re-entering the ureters.
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- At the same time, the main muscle of the urinary bladder, the detrusor muscle, is relaxing allowing the bladder to distend and accommodate more urine.
- **Voiding Stage**
 - During this stage, both the urinary bladder and the urethra come into play together.
 - The detrusor muscle of the urinary bladder which was relaxing so far starts to contract once the bladder's storage capacity is reached.
 - The urethra is controlled by two sets of muscles:
 - The internal and external urethral sphincters.
 - The internal sphincter is a smooth muscle whereas the external one is skeletal.
 - Both these sphincters are in a contracted state during the filling stage.
