

VISCEROSENSORY SYSTEMS (VISCERAL AFFERENTATION)

- pathways for viscerosensory information from the thoracic and abdominal cavity
- similar pattern of transmission as in the case of somatosensory pathways
- differences in location of the primary sensory neurons

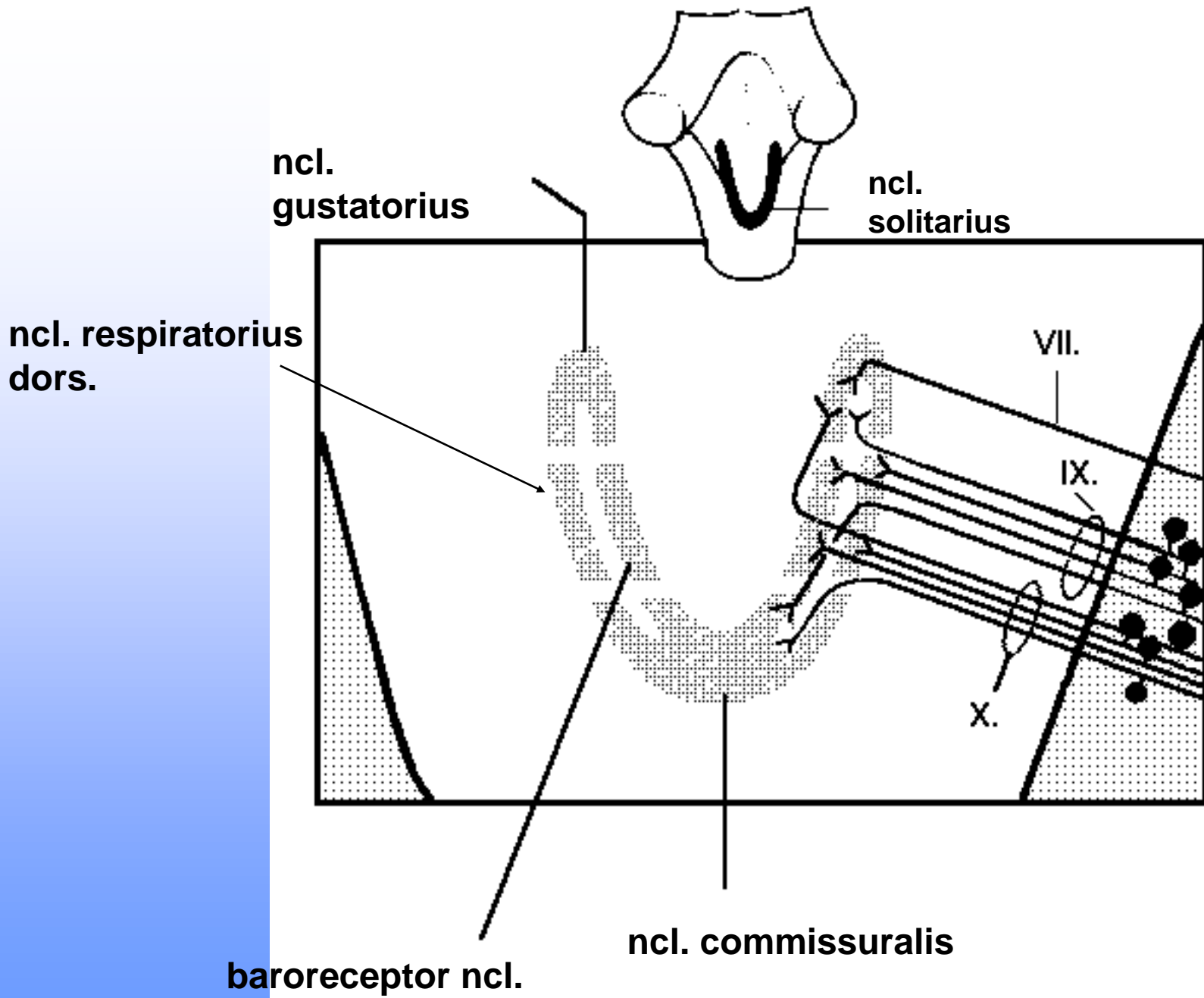
Viscerosensory fibres in nerves of the parasympathetic system

First-order neurons - ggl. inferius (petrosal) n. IX

- **general visceral afferent fibres** from the mucous membrane of the oropharynx – termination in the commissural ncl. of the ncl. solitarius – afferentation for contraction of the pharyngeal constrictors – swallowing reflex and gag reflex (nausea)
- **sinus caroticus (baroreceptor)** – systolic blood pressure ---> baroreceptor nucleus in the ncl. solitarius
- **glomus caroticum (chemoreceptor)** – monitoring of the levels of O₂ and CO₂ --> dorsal respiratory nucleus in the ncl. solitarius

First-order neurons – ggl. inferius (nodosum) n. X

- **general visceral afferent fibres** from the heart, respiratory and alimentary tract --> the ncl. commissuralis in the ncl. solitarius ---> other connections with vital structures in the brainstem, that control, e.g., cough, respiration, heart beat
- **sinus caroticus (baroreceptor)** – systolic blood pressure ---> baroreceptor nucleus in the ncl. solitarius
- **glomus caroticum (chemoreceptor)** – monitoring of the levels of O₂ and CO₂ --> dorsal respiratory nucleus in the ncl. solitarius
- **chemical information from the stomach** --> lateral hypothalamus (appetstat) – influence of the caloric and nutrient intake (feeding control)



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Viscerosensory fibres in nerves of the sympathetic system

tactile and vibratory information, thermoception as well as pain from visceral organs

