<u>Cite this as</u>: Li-hong SUN, Wen-xin ZHANG, Qi XU, Hui WU, Cui-cui JIAO, Xin-zhong CHEN, 2019. Estrogen modulation of visceral pain. *Journal of Zhejiang University-Science B* (Biomedicine & Biotechnology), 20(8):628-636. https://doi.org/10.1631/jzus.B1800582



Key words: Estrogen, Visceral pain, Hyperalgesia, Ovariectomized

## Summary

This review summarizes the literature relating to the role of estrogen in modulating visceral pain with emphasis on deciphering the potential central and peripheral mechanisms.

## Highlights

 Estrogen modulates visceral pain processing peripherally

- Spinal mechanisms are involved in estrogen modulation of visceral pain
- Estrogen's role in regulating visceral pain is supraspinally mediated

## Research Summary

In this review, we summarized the evidence of the important role of serum estrogen in regulating visceromotor response.

Estrogen plays an important part in modulating visceral noxious stimulation-evoked nociceptive sensitization at the level of peripheral, spinal and supraspinal sites.



A better understanding of estrogen-mediated differences in visceral pain may be helpful in unveiling some of the key mechanisms contributing to the development of visceral pain, and may provide new targets for the development of therapeutic strategies.

More studies are needed to examine the role of the estrogen in modulating visceral pain.