

## **GENDER, SEX AND CHRONIC PAIN – CLINICAL ASPECTS**

**Linda LeResche**<sup>1</sup>

<sup>1</sup> University of Washington, Seattle, USA

Epidemiologic studies indicate that most pain conditions are more common in women than in men. However, the differing age patterns for different pain conditions suggest sex and gender interact with other factors to influence rates of onset or persistence for specific pain conditions. There are a variety of reasons why particular chronic pain conditions may be more prevalent in women. Viewed within the context of a multidimensional, biopsychosocial model of chronic pain, sex (biological identity associated with chromosomes) and/or gender (psychosocial/role identity) can influence the experience of chronic pain at many different levels. There is growing evidence for anatomical and neurophysiological differences in the nociceptive systems of males and females; sex differences in perceptual sensitivity have been documented within a number of sensory systems; stress response, emotional reactions and pain coping differ by gender; pain behavior is influenced by socialization and gender roles; and differing social and cultural roles for males and females are associated with exposures to different risk factors for pain, as well as with differing expectations for pain-related behaviors. The roles of hormonal status and chronobiology in clinical pain conditions in women (e.g., clinical pain changes across the menstrual cycle, pain during pregnancy, and associations of pain conditions with puberty, menopause and exogenous hormone use) deserve further investigation. There is growing evidence that hormones influence migraine headache and temporomandibular pain. The evidence for hormonal influences on other chronic pain conditions is less convincing. Future research should address these gaps in knowledge, with the aim of understanding mechanisms.