

BRAIN IN THE HORMONES' POWER

S u m m a r y

This review article describes the organizational effects of sex hormones on the developing brain and their activational role in regulation of brain function in adulthood. Gender differences in behavior and mental function depend on the action of sex hormones. Clinical studies showing the consequences of hormonal abnormalities, the effects of hormonal treatment as well as the effects of natural fluctuations in the circulating sex hor-

mones are presented. All these data lead to the coherent view that hormones not only control reproductive behavior but also play a key role in regulation of various cognitive functions. Findings of basic neuroscience help to elucidate the mechanisms of hormones action at the level of neurochemistry or fine-grained neuroanatomy of synaptic connections in the brain areas known to be critically involved in learning and memory.