

S u m m a r y

Psychic sex consists of gender identity (self-estimation), gender role (objective estimation of the behavior) and psycho-sexual orientation (hetero-, bi- or homosexual). It was believed that gender identification depends on the socio-environmental influences such as rearing, learning and individual choice. It has become recently evident that endogenous hormones more than socio-environmental factors may create sexually dimorphic gender identification and role. Experiments revealed that transient action of sex steroids (testosterone or estradiol) during perinatal life is crucial for the development of male sexual behavior in adulthood. In human male testosterone, produced perinatally in adult-type amounts, may play a role in the masculinisation of the brain i.e. creation of physiological and behavioral differences versus the female brain. In patients with

disturbances of sexual differentiation of external genitalia (intersexuality) gender identity is also affected. Female gender identity is associated with the presence of ovaries or the lack of gonads (agenesis/dysgenesis), i.e. lack of sex steroids in fetal life. Male gender identity appears in the presence of testicular tissue (presence of testosterone in fetal life) irrespective of karyotype and phenotype of the body. In genetic men with the absence of male genitalia due to aberrant function of the androgen receptor (46,XY women), gender identity depends on the severity of the disorder: female - in the complete form and female, male or ambivalent - in the partial. These indicate that androgens are involved in the creation of male gender identity, whereas a female identity develops in the absence of androgen action during sexual differentiation.