

## MICROPENIS EAU GUIDELINES 2013

### ***Classification***

Micropenis is a small but otherwise normally formed penis with a stretched length of less than 2.5 SD below the mean. Besides an idiopathic micropenis, two major causes of abnormal hormonal stimulation have been identified:

- Hypogonadotropic hypogonadism (due to an inadequate secretion of GnRH).
- Hypergonadotropic hypogonadism (due to failure of the testes to produce testosterone).

### ***Diagnosis***

The penis is measured on the dorsal aspect, while stretching the penis, from the pubic symphysis to the tip of the glans. The corpora cavernosa are palpated, the scrotum is often small, and the testes may be small and descended. Micropenis should be distinguished from buried and webbed penis, which is usually of normal size. The initial evaluation has to define whether the aetiology of the micropenis is central (hypothalamic/pituitary) or testicular. A paediatric endocrinology work-up has to be carried out immediately. Karyotyping is mandatory in all patients with a micropenis. Endocrine testicular function is assessed (baseline and stimulated testosterone, LH and FSH serum levels). Stimulated hormone levels may also give an idea of the growth potential of the penis. In patients with non-palpable testes and hypogonadotropic hypogonadism, laparoscopy should be carried out to confirm vanishing testes syndrome or intra-abdominal undescended hypoplastic testes. This investigation can be delayed until the age of 1 year.

### ***Treatment***

Pituitary or testicular insufficiency are treated by the paediatric endocrinologist. In patients with testicular failure and proven androgen sensitivity, androgen therapy is recommended during childhood and at puberty to stimulate the growth of the penis. In the presence of androgen insensitivity, good outcome of sexual function is questioned and gender conversion can be considered.