

SEXUALITY AND SEXUAL DEVELOPMENT IN THE LIFECYCLE

Sexuality and sexual development from inception to old age is subject to many diverse factors, one of the most important is hormones. Chemical messengers travelling through our bloodstream, our hormones influence many processes in the body. From our genital development in the womb to our sexual development during puberty and the ups and downs of sexual drives and desire throughout our life cycle, hormones are a key part of human sexuality.

Early & Middle Childhood

From the very beginning of inception hormones are influencing our development. Sexual organs start off surprisingly similar in the womb but by twelve weeks the foetus starts to develop its genitals accordant to its male or female chromosome. For a male baby foetus the hormone MIS (Mullerian Inhibiting Substance) suppress the development of female genital characteristics and androgens (testosterone) plays a vital role in developing the male aspects.

From infancy children play with, and explore their genitals. During early childhood sexual activity and roles continue to develop, the NSPCC promote four different stages of sexual development with the stages up to 9 years old (so called middle childhood) describing healthy sexual behavior as being curious about body parts, showing, rubbing or touching their private parts.

Puberty & Adolescence

This behaviour changes during pre-adolescent (9-12 years) and culminates in a surge of hormones during puberty. This is when the hypothalamic-pituitary-gonadal axis (HPG axis) come online, these three gland are an important part of the endocrine system (the group of glands around the body that send chemical messages) linking the brain and the sexual organs. The HPG axis controls development, reproduction and aging.

At the build up to and onset of puberty hormones are released, triggered by various factors such as body mass. For girls this can begin at 10 to 14 years old and 12 to 16 years old for boys. Signs of puberty in boys include: development of the genitals (starting with increased size of the testes) and nocturnal emissions and for girls the onset of menstruation and breast development. Along with achieving fertility, girls and boys go through emotional, psychosocial and physical transition as they move from childhood to adulthood. For children of both sexes changes in physical size and strength (or growth spurts), acne, the development of pubic and body hair are all key features.

Adulthood

Once a person is sexually mature they may begin sexual exploration through masturbation and partnered sex. As adults we begin to form romantic sexual bonds, sometimes leading to becoming parents. The so called bonding and trust hormone Oxytocin plays a key part in the neurobiology of love. Key development stages bring their own challenges and impact on sexual satisfaction and expression. Relationship, financial or health issues in the lifespan can have an impact on desire levels and stress hormones.

Starting a family in particular can be a stressful time. For a woman the hormone imbalance caused by pregnancy can continue for some time after childbirth. These hormonal changes along with

physical changes and trauma of a birth can impact self-esteem. For a man, witnessing his partner give birth can bring about a fear of causing pain and anxiety about potential pregnancy or genital injuries sustained during birth. Sleepless nights and the demands of an infant, especially for a mother who is bonding with her child can get in the way of partner intimacy, or just the lack of time and privacy can cause of sexual concerns and issues that may lead to need for some therapy or clinical intervention.

Middle Age & Later Life

In later life and middle age as women head towards menopause hormones decrease, the ovaries decrease production of oestrogen and the ovaries no longer release an egg each month. This change can lead to a loss of desire and various organic sexual challenges. Symptoms of the menopause can be severe and include hot flushes, night sweats, low mood, anxiety, difficulty sleeping, reduced sex drive and vaginal dryness. The physiological symptoms can cause pain during intercourse and significantly impact a woman's sexual enjoyment. Vaginal dryness can cause pain and also the vulva can atrophy and the skin can become thinner all of which can cause pain during penetration, any symptoms or concerns need to be checked out with your GP as symptoms can start years before menopause and last up to four years after periods have stopped.

Men do not experience a sudden drop in menopause in the way women do, however men do see a steady decline in testosterone, about 2% per year from around the age of 30-40 years old. In their forties and fifties men can develop symptoms of irritability, poor concentration, loss of muscle mass and reduced ability to exercise, erectile dysfunction, lowered libido, increase of belly fat (which in itself can increase oestrogen levels) and gynaecomastia. Whilst some of these symptoms may be down to lower testosterone levels there can be many other lifestyle factors to be considered such as smoking, alcohol, poor diet and high stress levels.

With awareness, medical treatment when necessary and healthy lifestyle choices most people can have fulfilling and healthy sex their whole lives.

If you have any questions or concerns about anything in this article or you have any symptoms speak to your medical practitioner and if required seek a referral to sexual health worker or Psychosexual Therapist.

Further Reading:

Cohen-Kettenis, P. T. (2010). Psychosocial and psychosexual aspects of disorders of sex development. *Best Practice & Research Clinical Endocrinology & Metabolism*, 24(2), 325-334.

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Simon, W., & Gagnon, J. (1969). Psychosexual development. *Trans-action*, 6(5), 9-17.