



Age and Fertility

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Fertility in women is regulated by a reproductive cycle that begins between the ages of 9 and 15 and ends between the ages of 40 to 45. This reproductive cycle is controlled by a very complex hormonal system that begins functioning somewhere between the ages of 7 and 9. The first signs are growth of the mammary glands and pubic hair, followed by the onset of the first menstruation period, also known as Menarche.

During the first few years of puberty the reproductive hormonal system is immature, which explains the irregular menstrual periods with no regular cycle. A regular cycle is achieved once ovulation becomes consistent and cyclical, which can occur between the ages of 15 to 17, and remains stable until around the age of 30.

Afterwards, the lifetime reserve of eggs begins to decline, and with that, a change in the hormonal cycle that controls the Hypothalamus and the Hypophysis in the brain, responsible for the production of the Follicle Stimulating Hormone (FSH) and the Luteinizing Hormone (LH). FSH is in charge of stimulating growth of the ovarian

follicles for the production of eggs, and the LH prepares and enables the eggs for their eventual rupture and ovulation.

There are many things that can happen to alter this hormonal system during any stage of women's lives. We call them physiological and pathological (normal and abnormal) changes. The most common and well-known physiological cause is pregnancy. In this stage the reproductive cycle is suspended to give way to a series of endocrinal (hormonal) changes, as well as physical and psychological ones.

Within the abnormal pathological alterations we find cases of Chronic Anovulation (lack of ovulation cycles) caused by any number of reasons, and characterized by irregular periods, or their absence (Amenorrhea) altogether for variable periods of time. The ultimate objective of this reproductive cycle is to achieve clinical changes in the female body in preparation for conception and procreation of a new being. Any situation that breaks the hormonal harmony will interfere with this objective and, if this alteration is chronic in nature, it will lead to infertility.

At the end of the reproductive cycle there is a stage called the Climacterium. This period is the dusk of the hormonal reproductive cycle, and it includes an even more variable series of physical, psychological and

emotional changes that give way for the organs and tissues to gain stability or rest from the constant clinical changes during the woman's entire reproductive life.
