

Cis-gender girls and women experience a wide range of ovarian hormone profiles across their lifespan; starting at puberty and ending with menopause. Following the pubertal transition, adolescent girls and women can encounter a variety of 'natural' sex hormone profiles, including the menstrual cycle, pregnancy, and various menstrual irregularities. In addition, the natural hormonal milieu can be perturbed by exogenous supplementation; for example by hormonal contraceptive or hormone replacement therapy usage, as well as by some clinical conditions, such as in vitro fertilisation treatment. It is well recognised that data on exercising women are scarce and is often low to moderate quality, which is possibly due to a number of reasons: (i) there is a shortage of specialist knowledge on female physiology, in particular endocrinology, in the sports nutrition community; (ii) until recently, there has been a reluctance to include female participants in research studies, due to the numerous adaptations, to experimental design, needed to incorporate female specific considerations, such as the menstrual cycle; (iii) there is no consensus on the terminology and methodological approaches needed to produce high-quality studies. These issues have undoubtedly slowed the pursuit of knowledge in this field of research. The purpose of this talk is present the different hormonal profiles that female athletes may encounter during their sporting career and to indicate how these hormonal changes might influence sports nutrition and exercise physiology guidelines.