

10

Abnormal Menstrual Cycles

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10.1. LEARNING OBJECTIVES

After completing this chapter, you should have an understanding of the following:

- The terminology of normal and abnormal menstrual function.
- The causes of menstrual dysfunction.
- Consequences of menstrual dysfunction in young women.
- Health concerns because of menstrual dysfunction.

10.2. INTRODUCTION

Regular menstrual cycles in young women reflect cyclic ovarian activity and generally are associated with a healthy lifestyle. When a woman experiences a change from regular, cyclic menstrual function to irregular or acyclic function, that change is an indication of either a pregnancy or of some underlying pathology, and the cause for the change in cyclic function should be determined by a physician as soon as possible.

To communicate effectively with your peers and students regarding menstrual cycles, you should know and understand normal and abnormal menstrual function and the terminology describing that function. Although there is not complete agreement on the strict definition of all the terms, the terms described next are a reasonable approximation of these definitions (1). These words describing menstrual function are used widely in the scientific literature, but you should assume that the average lay person will probably not be aware of the meaning of these words. Therefore, to avoid misunderstanding and confusion, you should define what you mean when you use these terms in discussion of menstrual problems.
10.2.1. Eumenorrhea (Regular)

This refers to menstrual cycles that occur consistently at intervals of 25–38 days. These cycle lengths are generally observed in sexually mature women except during pregnancy and during the pubertal and the perimenopausal (around the time of menopause; this can be several years before the actual cessation of menstrual function) transitions when menstrual cycles are more variable.

10.2.2. Oligomenorrhea (Irregular)

This term refers to infrequent menses or menstrual cycles that occur inconsistently at intervals of 39–90 days.

10.2.3. Amenorrhea (Acyclic)

This is when menstrual cycles occur at intervals of greater than 90 days or when there is the complete absence of menstruation. There are two types of amenorrhea that are defined based on whether the woman has experienced previous menstrual cycles.

10.2.3.1. Primary Amenorrhea

This is when a young woman has not experienced menarche by age 16. In other words, a girl has primary amenorrhea if she has not had her first period by the age of 16.

10.2.3.2. Secondary Amenorrhea

It is defined as the absence of a menstrual period for six consecutive times or months after menarche has occurred. It is estimated that as high as 5% of the adult women in the United States experience secondary amenorrhea (2). There are a number of adjectives to describe the causes of amenorrhea such as dietary, emotional, jogger, postpartum, and lactational (nursing), but these will be avoided for the most part. However, terms used by clinicians to describe amenorrhea caused by exercise or stress are functional or hypothalamic amenorrhea, and these are used widely in the clinical and scientific literature.

10.3. RESEARCH FINDINGS

10.3.1. Eumenorrhea

In Chap. 9, we have discussed the normal menstrual cycle.

10.3.2. Oligomenorrhea

This term actually means “few menses.” Although very light menstruation is sometimes referred to as oligomenorrhea, medical professionals have a more narrow definition, applying this term only to the frequency of menstrual periods. There are many reasons for irregular menstruation, but the most frequent cause is what clinicians refer to as PCOS or polycystic ovary syndrome (3) that affects approximately 6% of women (4). Low energy availability is another cause of oligomenorrhea and amenorrhea (5) and is probably an important consideration for elite high school