

# DYSMENORRHEA



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**By**

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## **INTRODUCTION:**

Dysmenorrhea is a medical term used to describe painful menstruation or menstrual cramps. It is a common problem for many women during their reproductive years.

**TYPES: Dysmenorrhea can be divided into two main types: primary and secondary.**

**Primary dysmenorrhea :** It is a type of menstrual pain that is not caused by any medical condition. It typically begins within a few years of the first menstrual period and improves with age or after childbirth. The pain is caused by the uterus contracting to shed its lining and is usually felt in the lower abdomen or back.

**Secondary dysmenorrhea:** It is a type of menstrual pain that is caused by an underlying medical condition, such as endometriosis, adenomyosis, or uterine fibroids. The pain may be more severe and occur at different times during the menstrual cycle. Other symptoms may also be present, such as heavy bleeding or irregular periods.

## **CAUSES/ETIOLOGY:**

- In primary dysmenorrhea, the pain is believed to be caused by the release of **prostaglandins**, which are hormone-like substances that are produced by the lining of the uterus. These prostaglandins cause the uterus to contract and shed its lining, leading to menstrual cramps.
- In secondary dysmenorrhea, the pain is usually caused by an underlying medical condition, such as **endometriosis, uterine**

**fibroids, or adenomyosis.** These conditions can cause inflammation, scarring, or abnormal growths in the uterus, which can lead to pain and other symptoms.

- Hormonal imbalances
- Stress
- Family history of painful periods
- Lifestyle factors such as smoking or a poor diet.

#### **PATHOGENESIS:**

- Dysmenorrhea develops in the body due to various physiological and hormonal changes that occur during the menstrual cycle.
- Menstrual cramps are caused by the contractions of the uterus. Uterus is a muscular organ that helps to shed its lining during menstruation.
- During the menstrual cycle, the lining of the uterus thickens in preparation for a possible pregnancy.
- If pregnancy does not occur, the levels of hormones such as estrogen and progesterone decrease, triggering the release of prostaglandins, which cause the uterus to contract and shed its lining.
- The higher the levels of prostaglandins in the body, contractions of the uterus increases and then menstrual cramps can be severe.

## **CLINICAL MANIFESTATION/SIGN & SYMPTOMS:**

- Cramping pain in the lower abdomen or back, which can range from mild to severe
- Nausea and vomiting
- Diarrhea or constipation
- Headaches or dizziness
- Fatigue or weakness
- Painful bowel movements or urination
- Bloating or swelling in the abdomen
- Mood swings, irritability, or depression

## **DIAGNOSIS:**

- Physical examination
- Family history & Medical history.
- Pelvic ultrasound: This imaging test uses sound waves to create images of the uterus, ovaries, and other pelvic organs.
- Laparoscopy: This is a surgical procedure in which a small camera is inserted into the abdomen to look for signs of endometriosis or other conditions that could be causing pain.
- Blood tests: These tests can check for hormonal imbalances or other underlying medical conditions that could be contributing to your pain.

## **PHARMACOLOGICAL MANAGEMENT:**

- **Nonsteroidal anti-inflammatory drugs (NSAIDs):** These drugs, such as ibuprofen and naproxen, work by reducing inflammation and blocking the production of prostaglandins, which are hormone-like substances that cause pain and inflammation.
- **Acetaminophen:** This pain reliever is not an NSAID, but it can still help alleviate menstrual pain.
- **Hormonal contraceptives:** Birth control pills, patches, and vaginal rings can help regulate menstrual cycles and reduce the amount of prostaglandins produced, which can help alleviate menstrual pain.
- **Gonadotropin-releasing hormone (GnRH) agonists:** These drugs, such as leuprolide, work by suppressing the production of estrogen and reducing the amount of prostaglandins produced, which can help alleviate menstrual pain.
- **Antidepressants:** Certain types of antidepressants, such as selective serotonin reuptake inhibitors (SSRIs), can help alleviate menstrual pain by reducing the amount of prostaglandins produced.

## **NON PHARMACOLOGICAL MANAGEMENT/PREVENTION:**

- **Exercise regularly:** Regular exercise can help reduce menstrual pain by increasing blood flow and reducing stress.
- **Maintain a healthy diet:** Eating a balanced diet that includes plenty of fruits, vegetables, and whole grains can help reduce inflammation and alleviate menstrual pain.

- **Manage stress:** Stress can exacerbate menstrual pain, so finding ways to manage stress, such as meditation or yoga, can be helpful.
- **Take pain medication:** Over-the-counter pain relievers, such as ibuprofen or naproxen, can be taken at the first sign of menstrual pain to help reduce its severity.
- **Use heat therapy:** Applying heat to the lower abdomen or lower back can help reduce menstrual pain. You can use a heating pad, hot water bottle, or take a warm bath.
- **Consider hormonal contraceptives:** Hormonal contraceptives, such as birth control pills, patches, or vaginal rings, can help regulate menstrual cycles and reduce the amount of prostaglandins produced, which can help alleviate menstrual pain.