



# FORMULATION AND EVALUATION OF HERBAL MENSTRUAL PAIN RELIEF TABLET

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**Abstract:** The herbal tablet for menstrual pain relief provides a natural remedy for easing discomfort linked to menstruation. Crafted with a mixture of herbal extracts like ajwain, neem, ginger, ashoka, punarnava, amla, guggul and castor oil, its purpose is to alleviate menstrual cramps, bloating, and other typical symptoms. Scientific findings indicate that specific herbs within the tablet harbor anti-inflammatory and analgesic qualities, potentially aiding in relaxing muscle contractions and alleviating pain. Nevertheless, additional research is necessary to thoroughly grasp the operational mechanisms and effectiveness of this herbal solution in addressing menstrual pain.

**KEYWORDS:** Herbal tablet, Neem, Ginger, Ajwain, Guggul, Ashoka, Punarnava, Menstrual pain.

## INTRODUCTION

Presenting "Herbal Menstrual Pain Relief Tablets," which are especially made from a combination of herbs, such as ginger, chamomile, and cramp bark, that are well-known for their ability to reduce inflammation and alleviate pain. This all-natural solution offers comfort and ease during your monthly cycle by controlling menstruation discomfort holistically. With our herbal tablets, bid discomfort a fond farewell and welcome natural relief. With our "Herbal Period Pain Relief Tablets," a natural remedy created to lessen menstrual discomfort, say welcome to ease throughout your period. Using the power of herbs, these tablets provide gentle pain relief for cramps and discomfort, making menstruation more comfortable [1].

Women of reproductive age frequently have primary dysmenorrhea, which is characterized by intense uterine contractions or menstrual cramps during menstruation without any underlying pelvic problems. Usually, the first 24 to 36 hours of the menstrual cycle are when the discomfort peaks. In Thailand, 84.2% of teenagers suffer from dysmenorrhea, which has a major negative influence on their everyday activities, productivity at work, and academic achievement [4].

An aberrant rise in prostaglandin release during menstruation is part of the pathophysiology of primary dysmenorrhea. Prostaglandins, which are produced from arachidonic acid by the cyclooxygenase (COX) pathway, cause an increase in contraction of the uterine muscles and are correlated with pain intensity. Despite their gastrointestinal adverse effects, nonsteroidal anti-inflammatory medications (NSAIDs) like ibuprofen and mefenamic acid are frequently used to relieve pain, which is the main objective of treatment [2]. On the other hand, cyclooxygenase-2 (COX-2) inhibitors are more expensive yet provide pain relief without the possibility of gastrointestinal problems. Furthermore, studies back up the use of traditional medicine based on herbal therapy as an alternate form of treatment.

Traditional Thai herbal medicine called pasaplay is used to treat menstruation pain by restoring elemental balance and controlling menstrual flow. Clinical use attests to the effectiveness of Prasaplay, as its main

component, Plai, has anti-inflammatory properties. A standardized Thai herbal Prasaplai formula (PPF) was developed for this study even though there are many different formulas. As stated in the National Drug List of Herbal Medicinal Products AD 2008, three times a day, before meals, a dosage of 1000 mg is recommended.

Studies show that Prasaplai is just as effective as mefenamic acid in treating the discomfort associated with primary dysmenorrhea. However, in order to verify its effectiveness and determine any negative effects, randomized, double-blind, placebo-controlled trials are required. This study's main goal is to assess PPF's efficacy in treating primary dysmenorrhea using the dosage and placebo suggested by the National Drug List of Herbal Medicinal Products AD 2008. The study also attempts to evaluate user happiness and the negative impacts of PPF. Dysmenorrhea continues to be a serious public health issue that may have detrimental effects on health [5].

The natural ingredients in herbal menstruation pain treatment tablets are carefully selected for their unique qualities, which contribute to their benefits and properties. Usually, a combination of herbs known for their analgesic, sedative, and muscle-relaxing qualities is used in these pills.

The following are the main benefits and features:

**Anti-inflammatory:** A number of the herbs included in these pills, like chamomile and ginger, have anti-inflammatory qualities that help reduce uterine inflammation and relieve period cramps.

**Analgesic:** Some herbs, such as cramp bark, have natural analgesic properties that reduce pain by blocking pain impulses and easing menstrual discomfort.



**Muscle relaxation:** Components with well-known muscle-relaxing qualities, such as cramp bark and chamomile, help to ease uterine contractions and lessen the intensity of menstrual cramps.





**Holistic approach:** Herbal period pain treatment tablets take a holistic approach to treating menstrual discomfort, treating the underlying causes of menstrual pain as well as its physical manifestations.



**Natural relief:** These tablets provide a natural alternative to prescription painkillers by utilizing the healing qualities of plants. They relieve menstruation cramps without having the possible negative effects that come with taking pharmaceutical medications.

## MATERIAL AND METHOD

- MATERIAL**

S.NO.	INGREDIENTS	USES
1	NEEM ( <i>Azadirachta indica</i> ) 	help reduce fat and control sugar metabolism, as well as bile and acid production to aid in liver cleansing.
2	AMLA ( <i>Phyllanthus emblica</i> ) 	increases the liver's capacity for detoxification by helping the body get rid of toxins and dangerous materials.

3	<p>ASHOKA ( <i>Saraca asoca</i> )</p> 	<p>Because it balances Vata, it is effective in treating feminine problems like menorrhagia and dysmenorrhea. Because of its Sita (cold) quality, it also helps to stop bleeding in piles.</p>
4	<p>GINGER ( <i>Zingiber officinale</i> )</p> 	<p>Using ginger in doses of up to two grams per day, divided into powder or dietary form and taken over three days starting from the onset of the menstrual cycle, is considered safe for treating primary dysmenorrhea. Ginger may also be paired with complementary therapies such as exercise to enhance its effectiveness in alleviating menstrual pain.</p>
5	<p>PUNARNAVA ( <i>Boerhavia diffusa</i> )</p> 	<p>Because of its Deepana (appetiser), Pachan (digestive), and Pitta-balancing qualities, it improves digestion and helps the body maintain appropriate hemoglobin levels.</p>
6	<p>GUGGUL ( <i>Commiphora wightii</i> )</p> 	<p>Guggul is lauded for its anti-inflammatory properties and early studies indicate its potential in treating various inflammatory conditions like acne, eczema, psoriasis, and arthritis. Additionally, it has been utilized for weight management.</p>

7	<p style="text-align: center;">TURMERIC (<i>Curcuma longa</i>)</p> 	<p>The vibrant yellow-orange hue of turmeric is attributed to curcumin, its most potent component, which aids in blood purification, particularly during menstruation. Incorporating turmeric into one's diet during menstruation can help prevent anemia and enhance iron levels in the body.</p>
8	<p style="text-align: center;">CASTOR OIL</p> 	<p>It serves as a moisturizer for dry skin, hydrating and soothing it effectively. When applied to the scalp, it nourishes hair follicles and promotes hair growth, enhancing overall hair health. As a natural laxative, ingesting castor oil can relieve constipation.</p>

#### • METHOD

#### Formula generated for herbal formulation of tablet:

S.NO.	INGREDIENTS	QUANTITY TAKEN
1	Ashoka	1 gm
2	Ginger	0.5 gm
3	Turmeric	0.5 gm
4	Guggul	0.5 gm
5	Ajwain	0.25 gm
6	Punarnava	0.75 gm
7	Neem	0.5 gm
8	Amla	0.75 gm
9	Castor Oil	0.25 ml
10	Starch	0.75 gm
11	Talc	0.01 gm
12	Magnesium stearate	0.5 gm

Creating herbal period pain relief tablets typically involves following steps:

- 1. Ingredient Selection:** Choose herbs known for their pain-relieving properties and suitability for menstrual cramps, such as ginger, neem, ashoka, punarnava, amla, guggul and turmeric. Dried all the ingredients.
- 2. Formulation:** Regulate the proportions of each herb to achieve the desired effectiveness and safety profile. This may involve consulting with herbalists or experts in traditional medicine.
- 3. Preparation:** Grind or process the selected herbs into a fine powder. Ensure all equipment and surfaces are clean to prevent contamination.
- 4. Mixing:** Combine the powdered herbs thoroughly to create a homogenous mixture. This step is crucial for uniform distribution of active compounds.



**5. Binding Agent:** Depending on the formulation, an appropriate binding agent was added to form tablets i.e. Starch.

**6. Tablet Formation:** With the help of tablet punching machine, compress the herbal mixture into tablets of the desired size and shape. Sufficient pressure was applied to ensure the tablets hold together.



**7. Drying:** Allow the tablets to air dry or use low heat to remove excess moisture if needed. Proper drying helps prevent mould growth and ensures stability during storage.

**8. Packaging:** Package the tablets in airtight containers to protect them from moisture, light, and oxygen, which can degrade their potency. Label the containers with ingredients, dosage instructions, and any necessary warnings.

**9. Quality Control:** Conduct quality tests to ensure the tablets meet safety, potency, and purity standards.

## RESULT AND DISCUSSION

When evaluated for color, texture, shape, size, moisture content, disintegration and dissolution, friability, hardness, weight variation, and bulk density, the created formulations produced good results.

### Evaluation parameters of formulation:

S.NO	EVALUATION PARAMETER	RESULT
1	Colour	Brown
2	Texture	Smooth
3	Shape	Round
4	Moisture content	1.78%
5	Dissolution test	25 min
6	Disintegration test	11 min 25 sec
7	Friability	0.73
8	Hardness	4.1
9	Weight variation	0.45
10	Bulk density	0.42

## CONCLUSION

Herbal products can be made from a single herb or a blend of several plants that are thought to work in concert or complement each other. Certain plant medicines may also contain minerals and animal products, as is the case with many conventional medical compositions. These herbal products come in the form of raw plants or extracts made from different plant sections. Herbal menstrual pain relief tablets provide a holistic approach to managing the discomfort and cramping often experienced during menstruation. These tablets harness the therapeutic properties of various botanical extracts, carefully formulated to target menstrual symptoms effectively. Common herbal ingredients include ginger, known for its anti-inflammatory properties; turmeric, which may help alleviate pain and inflammation; chamomile, prized for its calming effects; and cramp bark, traditionally used for relieving uterine spasms.

While anecdotal evidence and small-scale studies suggest the potential effectiveness of these herbal remedies, the scientific consensus remains inconclusive. Larger, well-controlled clinical trials are needed to establish their efficacy definitively. Additionally, individual responses to herbal remedies can vary widely, influenced by factors such as dosage, preparation, and personal physiology.

Because herbal medicines may not be appropriate for everyone and may mix with drugs, safety is important when using them. Prior to incorporating herbal menstrual pain relief tablets into their regimen, persons who are pregnant, have specific medical concerns, or are on other medications should speak with a healthcare expert. In summary, herbal menstrual pain relief tablets offer a natural alternative for managing menstrual

discomfort, but their efficacy and safety require further research and consideration. While some individuals may find relief with these herbal remedies, others may not experience significant benefits. Consulting with a healthcare provider is essential to ensure safe and appropriate use tailored to individual needs.

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