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The Menstrual Cycle

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The Menstrual Cycle

The female menstrual cycle is a broad topic encompassing one of the most distinguishing characteristics of female physiology. The menstrual cycle involves many carefully orchestrated activities involving all the human body systems but in particular the endocrine and reproductive systems from a Western medicine perspective. From a traditional Chinese Medicine viewpoint, the spleen, heart, liver, and kidney systems are also important components of proper menstrual function. The start of their menstrual cycle (menarche) is an important life event for all young women. The menstrual cycle not only helps define gender identity (woman) but roles (mother, potential wife, nurturer) within society. Many gynecological, and even some non-gynecological, issues may be related to a dysfunctional menstrual cycle. Dysmenorrhea, oligomenorrhea, amenorrhea, metrorrhagia, polycystic ovarian syndrome, infertility, and premenstrual syndrome are just some of the gynecological conditions related to an abnormal menstrual cycle. Depression, anxiety, and chronic insomnia are just some other disorders connected to menstrual dysfunction.

Dysfunction of the menstrual cycle can ultimately result in inability to produce offspring or lead a quality life, which may create profound pyscho-emotional problems for both the patient and patient's family. Conversely, a woman's psycho-emotional traumas frequently manifest as dysfunction of the menstrual cycle, endometriosis, fibroids, cysts, cancer, unspecified infertility and other gynecological disorders.

In fact, some experts believe emotional traumas are a key cause of female disorders. According Dr. Christianne Northrup, a leading American gynecologist and author of numerous books, such as *Women Bodies, Women's Wisdom*, "Understanding that thoughts and emotions affect how energy works in the female body can help us decipher our individual bodies' unique language. The location of disease within the body—where it occurs—has psychological and emotional meaning and significance."

Therefore, as healthcare providers, we must strive to understand the menstrual cycle, so we can provide women both professional and empathetic support. Through our understanding the female menstrual cycle, may we then be able to help bring balance into our patient's lives and help them find relief from their suffering.

Female Internal Anatomy

The female reproductive organs include the internal and external genitalia including the breasts and structures enclosed within the pelvic cavity, such as the uterus. The pituitary and other endocrine glands also influence the reproductive cycle. Female reproductive structures located specifically within the pelvic cavity include:

- Fallopian tubes – tubular passageway where the eggs travel after release from the ovaries to the uterus. Location where fertilization typically occurs.
- Ovaries – endocrine/sexual organ responsible for producing female gametes (eggs/ova).
- Broad ligament – broad ligamentous structure (peritoneum), which attaches the uterus to in the pelvis.
- Uterus – the large muscular organ where the embryo (fertilized egg) implants. The uterus provides nourishment and support for the embryo and later for the developing fetus.
- Myometrium – the uterine muscle.
- Endometrium (uterine lining) – the endometrium sheds monthly when pregnancy does not occur. Pregnancy requires a sufficient level of hormones, particularly progesterone and a specific thickness is required for implantation, usually 7 mm – 11mm. When hormone and endometrial thickness are insufficient, fertilization may occur but the individual cannot support the fertilized egg, so pregnancy does not occur or is shortly terminated.
- Cervix – opening from the uterus to the vagina.

- Vagina – tubular tract from the external genitalia (vulva) to the uterus.

The Female Reproductive Cycle

Every month the uterus builds up a lining to prepare for implantation and development of a fertilized egg (blastocyst/embryo). If conception (fertilization) does not occur, the uterine lining sheds releasing blood, endometrial tissue, and serous fluid. A large part of TCM treatment for menstrual disorders is to influence blood flow and balance the energy within the pelvic cavity.

The female reproductive cycle, or menstrual cycle, is one of the most basic processes connecting us to the external environment. Even in our modern world in which we are somewhat removed from the influence of nature, menstrual bleeding, conception, and ovulation are still linked to lunar cycles. Research shows that during the full moon, ovulation and conception rates peak, whereas during a new moon, ovulation and conception rates decline. Often during the new moon, the menstrual period begins.

One key issue is that as our modern society becomes increasingly more complex, women delay pregnancies for careers. As a culture, the more removed from nature we become, the more reproductive cycles and menstrual bleeding are affected. Some researchers even say the West is in an epidemic of infertility.

So to begin, we must establish a baseline. Knowledge of certain terms will help you in clinical practice to discuss reproductive health with your patients and to communicate with doctors, particularly reproductive endocrinologists and gynecologists. So, what are the clinical definitions for reproductive terms? Also, what does a ‘normal’ period look like?

The following table provides a working glossary for female reproductive terms:

Terms

TERM	DEFINITION
Amenorrhea	Complete absence of a menstrual cycle for three or more cycles in a row. Primary amenorrhea occurs with failure to begin menstruation by age 16. Secondary amenorrhea refers to cases in which a woman has previously menstruated and then ceases to have periods.
Climacteric	The time frame from decreasing to absent ovarian function (perimenopause).
Delayed puberty	No breast development by age 13; No pubic hair by age 14; No menarche by age 16; More than 5 years between breast development and menarche.
Dysmenorrhea	Painful cramps during menses (menstrual bleeding).
Early menopause	Menopause occurring after age 40 but before age 45.
Late menopause	Menopause occurring at or subsequent to age 55.
Menarche	Onset of menstruation; the first menses (can occur between 10.5 – 16 years, mean age 13)
Menopause	Permanent cessation of menstruation. It begins 12 months after the last menstrual period (mean age 51).
Perimenopause	Period of declining ovarian function (age 47 is the mean age for clinical symptoms, but symptoms may occur earlier). This stage is also sometimes referred to as menopausal transition.
Precocious puberty	Onset of sexual maturity before age 8.
Premature menopause	Menopause occurring at age 40 or earlier.
Puberty	The events leading up to sexually maturity in a child. It involves the development of secondary sexual characteristics and increased growth.
Reproductive life	Time from menarche to menopause.

The menstrual cycle begins the first day of menstruation and goes through a series of pathways, feedback systems, and networks resulting in either

pregnancy or menstruation if the individual fails to become pregnant. In general, we could say the menstrual cycle is a series of rhythmic changes occurring within the ovaries and to the endometrium (uterine lining). The cycle itself can be broken into at least four distinct phases: menses, post-menstrual (follicular phase), ovulation (ovulatory phase), and pre-menstrual (luteal phase). The following table describes these four phases according to the cycle day:

Phases of the Menstrual Cycle

Phases of the Menstrual Cycle
Menses Phase: Cycle day 1 – 3 or 4; can last up to 7 days
Follicular Phase: Technically also includes days 1 – 4 and goes to cycle day 12
Ovulation Phase: Lasts hours occurs anywhere from cycle day 13 – 14
Luteal Phase: Post ovulation from cycle day 15 – 28

The average menstrual cycle is described as:

- 28 days long
- Luteal hormone surge circa day 12 – 13
- Ovulation at approximately day 14
- Menstruation two weeks following ovulation
- Complete shedding of the uterine lining
- Menstrual bleeding (periods) lasting 3 – 7 days
- No spotting before or between periods
- Free of blood clots

While it is true that every woman's body is different—so the menstrual cycle may vary somewhat from individual to individual—some characteristics are considered normal (or baseline). The above

characteristics are commonly considered average. Please note in some cases, a woman may have a 26 or 30 day cycle throughout her entire menstrual history, and this cycle length would be considered normal for her. As practitioners, we need to be flexible to some degree and base each situation on a case-by-case basis. Usually, however, too short cycle lengths may not provide sufficient time for eggs to mature or the short length may contribute to insufficient luteal phases (luteal phase defect, a common cause of infertility). On the other hand, in cases where the cycle lengths are too long, the patient may experience delayed menstruation, severe PMS, and infertility, as well. So, as you can see, having too long or too short cycles are both pathological. Moreover, cycle lengths less than 24 days or more than 32 days may indicate other gynecological problems, such as polycystic ovarian syndrome, metrorrhagia, or amenorrhea. As a rule of thumb, any menstrual cycle more than two or three days outside the average should be regulated.

A major process in the menstrual cycle occurs in the ovaries. This process is the recruitment and selection of an oocyte (egg/ovum) within the ovarian follicle. Even before the cyclic selection process (anthral follicular phase), oogenesis begins up to 240 – 290 days before ovulation and is in itself a very complex process. Recall that as a result of meiotic division, the primary oocyte is suspended in an inactive state after birth. Meiosis is not completed until much later during the monthly recruitment process. Also, recall that at birth both ovaries combined contain about 2 million oocytes, by puberty that number has declined to 200,000 to 300,000 and throughout a women's lifetime only about 400 to 500 follicles will reach maturity and actually produce a secondary oocyte (ovum). Ovarian follicles are aggregates (conglomeration of cells) containing a single immature ovum, granulosa, and thecal cells. The development and release of the ovum occurs in response to circulating gonadotropins and varying levels of follicular stimulating and luteinizing hormones.

Follicular phase—The first stage of the menstrual cycle begins on Day 1 of menses and is called the follicular phase. The follicular phase results in a mature ovum (egg), which can later be fertilized or eliminated from the

body if fertilization does not occur. The follicular phase involves recruitment of primordial follicles through a pre-anthral stage, selection of a dominant follicle through the anthral follicular stage, and continued meiotic division (remember meiosis produces gametes: sex cells) development of the egg through the pre-ovulatory follicular stage.

The following table shows the major changes occurring during follicular development:

Stages of Follicular Development

Stages of Follicular Development
Follicular Phase (includes ovarian cycle): I. Recruitment (pre-anthral phase) primordial follicles at the start of the menstrual cycle II. Selection (anthral follicular phase) usually completed by cycle day 7 III. Dominance (pre-ovulatory phase) from cycle day 8 – 12

Ovulatory phase (mid-cycle)—Ovulation occurs when an ovary releases an ovum into the fallopian tubes in response to a surge of luteinizing hormone. Ovulation may occur on cycle day 13 but commonly occurs around cycle day 14 – 14.5. It is marked by a change in the cervical mucus (having an egg-white consistency) and in some women a slight lower abdominal pain in the region of the ovulating ovary. The left and right ovaries can alternate ovulation from month to month and in some women primarily one side (left or right) will ovulate more the than the other side. There is no rule of thumb regarding to which ovary will predominate. The pain felt around ovulation is called Mittelschmerz (from German literally meaning “middle pain”). About 20% of women will experience this pain, either with every cycle or intermittently.

Luteal phase—The luteal phase follows ovulation and is the time period in which fertilization and increased growth of the endometrium occurs. The luteal phase typically lasts from 11 to 17 days; however, some clinicians find that a luteal phase of at least 12 days is more conducive to fertility. Less than 10 days is considered a luteal phase defect (LPD). During the luteal phase, the corpus luteum (white body), which separates from released ovum, begins synthesizing progesterone to promote pregnancy. The corpus luteum will remain for about 2 weeks if pregnancy does not occur, and if fertilization does occur, the corpus luteum will continue to make progesterone for to up 8 weeks until placental production takes over the job of making progesterone. Fertilization commonly occurs within the fallopian tubes. If it does not occur, then the endometrium is shed marking the end of the luteal phase.

Menstruation—Menses (or menstruation, also called a menstrual period) refers to the phase during which the endometrium is shed and cyclic bleeding occurs. Menses on average lasts 3 to 4 days and commonly begins light and goes to a heavier flow, eventually tapering off the last day or so. In some women, menses may last up to 7 days. A menstrual period lasting more than 7 days is considered pathological. The average menstrual flow is 30 – 50 mL of blood. Some texts indicate that a flow greater than 80 mL should be referred for medical evaluation. US Food and Drug Administration recommends changing tampons or pads at least every 4 to 6 hours using the lowest absorbency product for an individual's flow. In clinical practice, a rule of thumb is the patient should not have to change the feminine hygiene product every two or three hours.

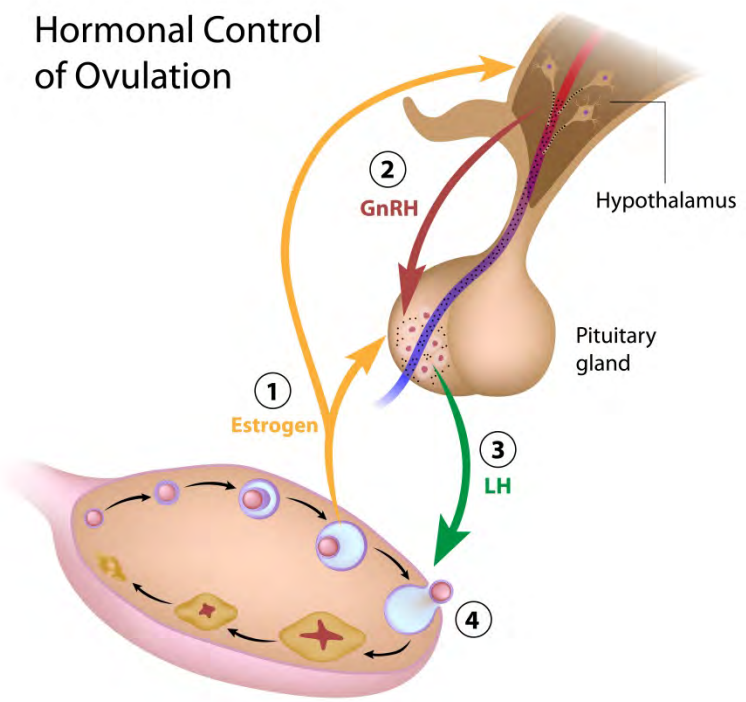
The US Department of Health and Human Services recommends a woman sees seeks medical attention if:

- Menstruation does not begin by the age of 15.
- Menstruation does not begin within 3 years after breast development, or if breasts haven't started to develop by age 13.

- Menstruation suddenly stops for more than 90 days.
- Menstrual periods become very irregular after having had regular, monthly cycles.
- Menstrual periods occur outside a 21 to 35 day frequency.
- Bleeding persists for more than 7 days.
- Bleeding is more heavy than usual or requires changing a pad or tampon every 1 to 2 hours.
- Bleeding occurs between menstrual periods.
- Severe pain accompanies the menstrual period.
- A woman gets a fever and feels sick after using tampons.

Introduction to Reproductive Endocrinology

As mentioned earlier in this course, the endocrine system has a major influence on reproduction and the menstrual cycle. The process of female reproduction is a highly complex system, which depends on the proper functioning of several organs including the brain. In fact, endocrinologist recognize a special relationship exists among three components in particular—the hypothalamus, pituitary, and ovaries. That relationship is sometimes referred to as the HPO axis. In brief, as the ovaries increase secretion of estrogen during the maturation of ova, higher levels of estrogen cause the hypothalamus to secrete gonadotrophin releasing hormone (GnRH). When GnRH reaches the anterior pituitary, it stimulates release of the gonadotrophins (follicle stimulating hormone and luteinizing hormone). A surge of luteinizing hormone eventually causes the ovary to release the mature ova. The diagram below illustrates these relationships:



Now, let's look at the related hormones a little closer:

Hormones

Class/Hormone	Production Site	Role
Estrogens	Primarily ovaries	There are three types of estrogens (E1, E2, and E3). Estrogens stimulate growth of breast, uterine, and ovarian tissue. Appropriate levels of estrogen help raise HDL levels and benefit the blood vessels among many other physiological functions. Too much estrogen can overstimulate cell growth leading to cancer. With the exception of estriol, all other estrogenic hormones (naturally occurring or synthetic) must be balanced with the hormone progesterone; otherwise they can be potentially harmful.
Estrone (E1)	Ovaries and adipose tissue	A less potent form of estrogen than estradiol. Patient can be considered as having low "estrogen" yet have high estrone levels. Higher levels are seen in postmenopausal women. High levels can contribute to slower metabolism and are associated with increased risk of breast and uterine cancer. High levels of estrone are a concern with PCOS since high levels of the hormone contribute to weight gain.
Estradiol (E2)	Ovaries, placenta	17-beta estradiol is produced in the ovaries and is the dominant and most potent form of estrogen in pre-menopausal women. It prepares the uterus for implantation and promotes maturation of the female reproductive organs and development of secondary sex

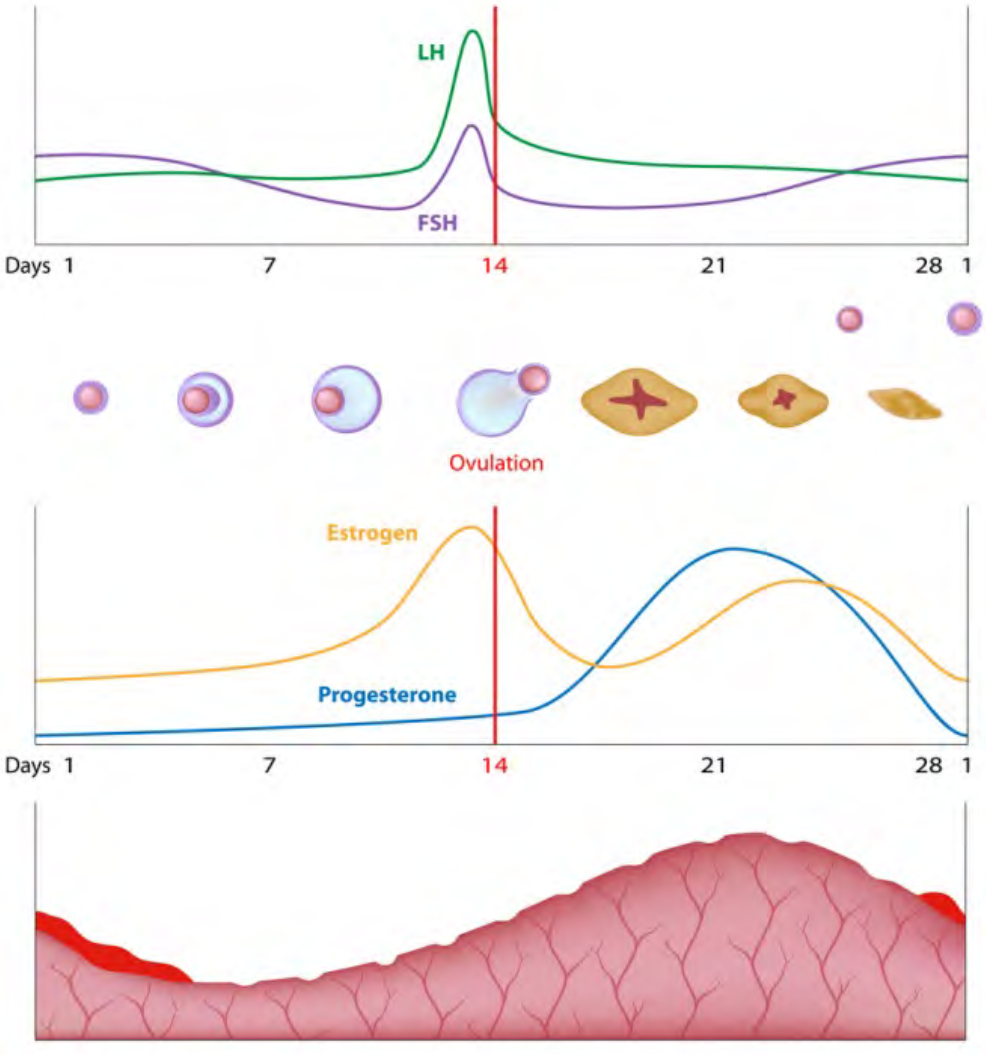
		characteristics (e.g., breasts). Estradiol not only contributes to fertility but also memory, cognitive function, blood pressure, bone density, sleep, and insulin-glucose balance among other things. Estradiol is often prepared pharmacologically to treat a variety of gynecological conditions as well as advanced breast and prostate cancers.
Estriol (E3)	Placenta	A weaker estrogenic hormone and found in the urine of pregnant women. Research indicates estriol may offer protection from breast cancer by preventing estradiol from binding to receptors in breast and endometrium tissue.
Follicle Stimulating Hormone (FSH)	Anterior pituitary	FSH in females regulates the release of a mature egg from its follicular cyst and helps stimulate production of estradiol during the first half of the menstrual cycle. At mid-cycle an increased amount of estrogen causes the body to have a dramatic surge of FSH and LH. (Note: In men, FSH stimulates production of sperm).
Luteinizing Hormone (LH)	Anterior pituitary	At mid-cycle a sudden surge of LH and FSH causes ovulation. During ovulation, the follicular cyst bursts and releases a mature egg. Home ovulation prediction kits detect a surge of LH, which is a sign that ovulation will occur within the next 24 to 36 hours. Measurement of LH/FSH can help to determine the relationship between the brain and sex gland function.
Progesterone	Corpus luteum	Progesterone is produced by the corpus luteum approximately 24 hours after ovulation. Three to four days following ovulation, progesterone levels peak and remain at an elevated level for

		approximately 11 days unless pregnancy occurs. If pregnancy does not occur, a rapid drop of progesterone levels causes the uterine lining to shed (menses). Progesterone has several functions including suppressing secretion of FSH/LH by the pituitary via negative feedback. (Note: During the first half of the menstrual cycle, progesterone levels are very low. However, during the second half of the menstrual cycle, high levels of progesterone cause food cravings, water gain, and slow digestion.)
Prolactin	Posterior pituitary	Prolactin is normally associated with pregnancy and nursing for its role in milk production. However, high levels of prolactin in menstruating women can cause irregular cycles and suppress estradiol and testosterone levels. High prolactin can also contribute to depression, headaches, weight gain, enlarged breast, and low libido.
Insulin and Glucagon	Pancreas, liver	Insulin and glucagon have opposite effects. Insulin lowers blood sugar, while glucagon causes the liver to break down stored glycogen elevating blood sugar. Both hormones are impacted by the balance of ovarian hormones. When ovarian hormones are unbalanced, the result is often weight gain—particularly around the waist. Unfortunately, increased body fat leads to insulin resistance, which in turns causes the body to actually store *more* fat. (Note: Acute and chronic stress also contributes to weight gain

		around the midsection as result of elevated cortisol.)
Dihydroepiandrosterone (DHEA) and Dihydroepiandrosterone - sulfate (DHEA-s)	Adrenals, ovaries	DHEA is a steroid produced from cholesterol. Production starts in the adrenals and continues in the ovaries and adrenals in women. It can also be produced in nerve tissue; hence, it's called a neurosteroid. DHEA is a precursor to other androgens and estrogen. It enhances immunity, libido, and memory. In women, excess DHEA produces testosterone, and in men excess DHEA produces estrogen. DHEA production generally declines with age.
Testosterone (Free and Total)	Adrenals, ovaries, fat tissue	Testosterone is an androgen typically associated with men and the adrenals. However, women also produce testosterone in their ovaries and in fat tissue (the reason testosterone production is an issue in polycystic ovarian syndrome/PCOS, which we will discuss briefly later). The normal testosterone level in women is about 10% of its level in men. Testosterone helps regulate coronary artery function, libido, and muscle mass. (Note: In PCOS, it is the elevated testosterone levels that cause excess body hair, thinning hair on the head, abdominal fat, acne/oily skin, irritability/anxiety, and sleep disturbances.)
Thyroid hormones (T3 and T4)	Thyroid gland	T3 and T4 regulate metabolism at the cellular level, and therefore are critical in normal ovarian function. Problems with thyroid function can lead to menstrual irregularity, infertility, and weight gain.

Prostaglandins—Prostaglandins are *not* hormones. They are a group of neurotransmitters with a huge effect on the female reproductive tissue such as oviductal and myometrial (uterine muscle) tissue. Prostaglandin actions are wide range including vasoconstriction, cytoprotection, and platelet aggregation to name a few. Excess levels of prostaglandins cause the smooth muscles of the endometrium to contract hence causing the menstrual pain we see in *primary dysmenorrhea*.

The following illustration shows the normal changes in endometrium and hormone levels throughout the menstrual cycle:



Common Menstrual Disorders

A number of gynecological disorders may arise as result of dysfunctional menstrual cycles. In this course, we will only examine a few of those disorders:

- Dysmenorrhea
- Amenorrhea and Oligomenorrhea
- Dysfunctional Uterine Bleeding, Metrorrhagia, and Menorrhagia

Dysmenorrhea—Dysmenorrhea refers to menstruation with pain and/or cramping. Two categories of dysmenorrhea exist: primary dysmenorrhea and secondary dysmenorrhea. In *primary dysmenorrhea*, the pain itself is the main problem and is often caused by an excess of prostaglandins or arachidonic acid affecting reproductive tissue causing contractions and pain. In *secondary dysmenorrhea*, some factor or ***other medical condition*** than the pain is the real problem, such as endometriosis or pelvic inflammatory disease.

Primary dysmenorrhea is very common and may often be a lifelong problem. It can be further divided into two categories: spasmodic and congestive. In *spasmodic primary dysmenorrhea*, the woman experiences sharp, gripping pain caused by tightening and constriction of the uterine tissue. The pain may begin one or two years after menarche and become progressively worse over time. This type of primary dysmenorrhea is more common in young women in their early teens or twenties. The muscular contractions associated with spasmodic primary dysmenorrhea produces waste products, which also make the pain worse.

In *congestive primary dysmenorrhea*, the pain is more of a dull, achy type in the lower back and pelvic regions. With this form of dysmenorrhea, congestion of fluids is the problem and irritability, bloating, weight gain, and headaches are also common. Women in their 30s or 40s tend to experience the worst cases of congestive primary dysmenorrhea, especially when the woman also has an estrogen imbalance.

Dysmenorrhea can also be caused by a hormonal imbalance, fluid retention, food allergies, liver toxicity, bladder infections, poor circulation, stress, intrauterine devices (IUDs), and vaginal yeast infections. Western diagnosis may include ultrasound, magnetic resonance imaging, laparoscopy, or hysteroscopy. Western treatment of primary dysmenorrhea can range from over-the-counter non-steroidal anti-inflammatory drugs to birth control pills to procedures such as endometrial ablation or a hysterectomy. Complementary therapy for dysmenorrhea may include biofeedback, detoxification, homeopathy, nutritional supplements, castor oil packs, diet modification, massage, acupuncture, and Chinese herbal formulas.

Additional Information on Prostaglandins—The body can use Omega 3 and 6 essential fatty acids as raw materials for making prostaglandins. Prostaglandins derived from Omega 6 can have a pro-inflammatory ***or*** anti-inflammatory effect; while prostaglandins derived from Omega 3 help to reduce pain and inflammation.

Amenorrhea and Oligomenorrhea—Amenorrhea refers to the complete absence of menstrual bleeding for at least three cycles. Oligomenorrhea refers to scanty menstrual flow or cycle intervals greater than 35 days. Polymenorrhea is a term referring to cycle intervals less than 24 days. Both amenorrhea and oligomenorrhea can be caused by a variety of factors. Poor nutrition, stress, excessive exercise and very low body fat can cause oligomenorrhea or amenorrhea in women and especially teens and young women.

Two types of amenorrhea exist: primary and secondary. Primary menstruation occurs when a girl does not begin menstruation by age 16. Secondary menstruation occurs when a woman stops having periods after having begun menstruating. In essence, pregnancy and menopause are also both instances of amenorrhea.

From a Western standpoint, amenorrhea and oligomenorrhea are directly related to endocrine gland dysfunction. According to some sources, amenorrhea is mainly cause by dysfunction of the ovaries and pituitary (remember the HPO axis). Poor adrenal function or an underactive thyroid can also interfere with reproductive hormone balance and prevent the series of events leading to menstruation. The Western approach is often to use drugs (e.g., Premarin), to regulate and induce periods. Complementary treatments include homeopathy, nutritional supplements, diet modification, and Chinese herbal formulas.

Dysfunctional Uterine Bleeding, Menorrhagia, Metrorrhagia—

Menorrhagia is heavy bleeding *during* periods. Metrorrhagia is irregular menstrual bleeding occurring *between* menstrual periods. Dysfunctional Uterine Bleeding is a spectrum of irregular bleeding patterns which are in 90% of the cases anovulatory and which cannot be attributed to a diagnosed medical condition, either gynecological or non-gynecological (e.g., cancer, pelvic inflammatory disease, fibroids, etc.)

Metrorrhagia and menorrhagia can be an especially difficult to resolve because both hormonal and emotional components may be involved with these irregularities. With excessive blood loss, both metrorrhagia *and* menorrhagia can severely deplete a woman and lead to anemia in addition to other complications. With menorrhagia, the abnormal and excessive bleeding may be accompanied by pain and blood clots. Metrorrhagia *and* menorrhagia are maladies that in some cases may confine a woman to her home or bed for a period of time. Causes of metrorrhagia and menorrhagia include endometriosis, uterine fibroids, leiomyomas, ovarian cysts, adenomyosis, deficiencies of iron or Vitamin A, hypothyroidism, and scarring from intrauterine devices. Endometriosis and fibroids are leading causes of metrorrhagia. About 50% of women with ovarian cysts experience some form of menstrual irregularity. Heavy menstrual bleeding is more common in women over 40 but may also occur in teens. In

addition, repressed emotions and physical trauma such as from sexual abuse can also lead to metrorrhagia.

Dysfunctional uterine bleeding (DUB) is defined as frequently skipping periods, moderate to heavy bleeding between periods, or spotting between periods. Any bleeding between periods and even spotting should always be considered abnormal. Many factors can lead to DUB including disturbance in the HPO pathway, abnormal thyroid hormone levels, anxiety, anger, depression, estrogen dominance over progesterone, and anovulatory cycles (i.e., PCOS). Small pituitary tumors called microadenomas may also, in rare cases, be the cause of DUB. Typically, Western diagnosis of DUB involves running blood tests and checking both the pituitary and thyroid hormones. Western treatment for DUB may include hormonal therapies and, in some cases, a procedure called dilation and curettage.

Oral contraceptives are often used as a general approach to control excessive bleeding. Other treatments include surgery, lasers, and other drugs to remove cysts or shrink fibroids. Western treatment for excessive bleeding may also include a hysterectomy, in more severe cases. Complementary treatment may include dietary changes, natural hormone supplementation, psychological counseling, homeopathy, nutritional supplementation, castor oil packs, acupuncture, and Chinese herbal formulas.

Infertility/Polycystic Ovarian Syndrome

This section will briefly touch on the topic of polycystic ovarian syndrome (PCOS). However, please look to future courses for more in-depth discussion of this topic.

PCOS is a metabolic disorder and typically treated in much the same way as diabetes. It is often characterized by weight gain especially around the waist, androgenism (including excessive body hair and high testosterone levels), hair loss on the scalp, anovulation, infertility, irregular periods,

insulin resistance, ovarian cysts, slow metabolism, and depression. Some patients with PCOS also have thyroid issues, but please note, PCOS does not directly create thyroid dysfunction. Pharmacological treatment for PCOS includes drugs such Spironolactone (anti-androgenic drug); aromatase inhibitors, Clomiphene (an infertility drug), Metformin (an insulin-lowering drug), and progestin (to create cyclic periods). Natural supplements include Chasteberry (Vitex agnus-castus), d-Chiro-Inositol, Gymnema silvestre (an Ayurvedic herb used for diabetes), and Chinese herbal formulas.

Not all patients with PCOS are overweight or have excessive body hair. Take for instance, the young 30 something patient who received weekly acupuncture for infertility due to PCOS. This patient was an event planner with a thin, slight physique, cheerful demeanor AND no apparent signs of excessive body hair or thinning scalp hair. However, she was anovulatory and consistently had 35 plus day cycles. When she started coming for acupuncture, she was taking Metformin, often complained of low energy levels, and easily felt cold (low temperature). Her basal body temperature charts often showed she had difficulty maintaining higher temperatures during the luteal phase also indicating low progesterone levels (in TCM terms—low Yang).

In summary irregular menstruation can have many causes and respond to a variety of treatments both Western and complementary. The practitioner should always aim at rebalancing the patient's hormones by addressing Liver, Spleen, and Kidney energetics. Patient education for stress management, diet, and self-care techniques are important. In some cases, referral for psychological counseling or further medical diagnosis/treatment may be necessary.

TCM Treatment of Menstrual Disorders

This section covers TCM treatment for three common menstrual disorders: amenorrhea, oligomenorrhea and dysmenorrhea. Within the topic of dysmenorrhea, heavy bleeding is also addressed (as related to qi deficiency).

Several keys to treating menstrual disorders is to conduct a thorough medical history/patient intake, to take the time to differentiate, and to regularly to update the patient's health history and diagnosis. Another important point regarding treatment is that it takes at least three cycles to regulate blood flow through the Ren and Chong. *From the onset, the acupuncturist should express to the patient treatments will need to be administered two to three times weekly for at least three month for optimal effect. This is the frequency the author of this course recommends.*

Amenorrhea and Oligomenorrhea

A TCM view of amenorrhea is the patient is experiencing a disruption of her bio-clock rhythm. Normal menstruation is viewed as monthly accumulation and release of *yue xin* (energy). When a woman fails to have a period (excluding pregnancy, menopause, and breastfeeding), typically from the TCM it is due to a congenital deficiency if the amenorrhea is primary or a secondary set of pathologies. In other words,

- ***Primary amenorrhea***—Due to a congenital deficiency of Essence. This happens when a girl fails to menstruate, usually by age 14 according to the *Nei Jing*.
- ***Secondary amenorrhea***—Due to a variety of causes:
    - Trauma, surgery, etc. leading to blood stasis
    - Emotional issues causing Liver Qi stagnation→ Blood stasis
    - Poor nutrition/irregular diet leading to dampness and phlegm retention blocking the Chong
    - Poor nutrition leading to blood deficiency
    - Overwork leading to Qi and Blood deficiency
    - Cold accumulation in the uterus or attacking Shaoyin level

The Liver, Chong, and Uterus are important organs involved with menstruation via connection with endocrine function, blood storage, and qi and blood flow. Therefore, if there are any imbalances in those organs, amenorrhea may result. Kidney deficiency may also contribute to amenorrhea via the Kidneys influence on hormone levels. Both the Kidney and Liver should be addressed when regulating hormonal levels. For endocrine issues excesses indicate a more Liver imbalance, while deficient symptoms commonly point more to Kidney deficiency.

Pregnancy Note

Before treating amenorrhea, always rule out any possibility of pregnancy. Here's a quick guide to help discern if your patient might be pregnant:

Differential Diagnosis of Amenorrhea vs. Pregnancy	
Amenorrhea	**Pregnancy**
Symptoms ○ Chronic, gradual onset of no menses, patient *may have* abdominal cramps.	○ Sudden onset of no period, history of regular periods, *no* abdominal cramps
Pulse ○ Could be wiry; choppy; hesitant; deep, weak and thin	○ Slippery
Physical Examination ○ No obvious gynecological changes	○ Breast distension, darker nipples

Acupuncture for Amenorrhea and Oligomenorrhea—When treating amenorrhea, the practitioner may use various points. The plan should involve regulating the Ren and Chong in all cases.

Pattern Differentiation

1. **KID and LIV Yin Xu/ Essence Xu (deficiency)** —Age 18 or older with no menarche, delayed overall growth, hair loss, hearing problems, weak knees/lower back pain, patient may have Yin Xu signs

   T – Pale, thin white coat

   P – Deep, thin, weak in rear

2. **Qi and Blood Xu**-- History of chronic illness, no menarche or irregular periods, fatigue, shortness of breath, poor appetite, poor memory, blurred vision, pale face, palpitations

   T – Pale, thin white coat

   P –Thready or thin, weak

3. **Qi Stagnation and Blood Stasis**—Irregular cycles, lots of clots, dark colored blood, pain, emotional issues, anxiety, depression, stress, anger, breast distension, mood swings, cramping, hypochondriac pain

   T – Normal or purple with spots

   P – Wiry or choppy

4. **Damp and Phlegm Retention**—May be overweight (Note: some patients may be thin or average weight and still have this pattern), abdominal distension, gas and bloating, mucus, vaginal discharge, phlegm, chest distension (from phlegm), sweaty palms

   T – Pale, thick greasy white coat, moist

P – Slippery

5. **Cold Accumulation in Uterus**—Cold hands and/or feet, cold feeling, relieved by warmth, delayed menses with cramps, dark or black blood, large clots, severe pain, may have chill/fever, pale complexion

   T – Pale, thin white coat or normal

   P – Deep, slow, weak or tight

Acupuncture

Basic points

- Ren 5 – Induces menses (NOTE: Avoid deep needling and during the period)
- Ren 6 – Regulates Qi; tonifies Qi, Yang and Yuan Qi
- Zigong – Extra point for uterus
- ST 28 – Promotes Qi flow
- SP 6 – Major gynecological point, Yin, blood, dampness
- Kid 8 – Endocrine point
- P 6 – Calms the mind, regulates blood

For Deficiency (Xu) patterns—Tonify the Ren and Chong using LU 7 and/or SP 4.

For Excess patterns— Drain excess with LU 7 + KD 6 and/or SP 4 + P6 using a cross insertion pattern to regulate the Ren and Chong.

1. **KID and LIV Yin Xu/ Essence Xu—**Tonify KID and LIV use basic points plus:
   - KID 3 – Tonifies the Kidneys, nourishes the Essence, regulates the uterus, treats low back pain
   - KD 6 – Nourishes Yin, cools blood, calms the mind, regulates the uterus

- BL 23 – Tonifies the Kidneys, nourishes the Essence
- BL 52 – Tonifies the Kidneys, psycho-emotional support
- GB 39 – Nourishes the Essence
- BL 18 – Benefits the Liver and Gallbladder
- LV 8 – Nourishes Liver Blood
- Ren 4 – Nourishes Yin and blood, Strengthens Yang, tonifies Kidney and Yuan Qi, regulates the uterus and menses

2. **Qi and Blood Xu —**Tonify Qi and nourish blood basic points plus:
   - ST 36 – Tonifies Qi and blood
   - LV 8 – Nourishes Liver Blood
   - BL 17 –Tonifies blood and Qi, moves stagnant blood
   - BL 18 – Benefits the Liver and Gallbladder
   - BL 20 – Tonifies Spleen Qi and Spleen Yang
   - Ren 4 – Nourishes Yin and blood, Strengthens Yang, tonifies Kidney and Yuan Qi, regulates the uterus and menses

3. **Qi Stagnation and Blood Stasis**—Soothe and regulate LIV, Move Qi and blood, Regulate Chong and Ren by draining excess plus may also use:
   - LI 4 – Promotes Qi circulation, unblocks the channels
   - LV 3 – Promotes Qi circulation, especially Liver Qi
   - GB 34 – Unblocks channels, promotes Qi circulation
   - SP 10 – Cools blood, moves blood
   - BL 17 – Tonifies blood and Qi, moves stagnant blood
   - BL 18 – Benefits the Liver and Gallbladder
   - BL 19 – Relaxes the diaphragm, reduces stuffiness in the chest
   - LV 13 – Promotes Qi circulation, especially Liver Qi, benefits the Stomach and Spleen
   - LV 14 – Promotes Qi circulation, benefits the Stomach

4. **Retention of Damp and Phlegm** -- Resolve dampness and transform Phlegm basic points plus:

- SP 9 – Resolves dampness in the lower Jiao
- ST 40 – Transforms phlegm, resolves dampness, clears mind
- ST 36 – Tonifies Qi and Blood, expels wind and damp from the channels
- Ren 9 – Controls the water passages
- Ren 12 – Treats dampness, tonifies Spleen and Stomach
- Ren 17 – Regulates Qi, opens chest

5. **Cold Accumulating in the Uterus**—Warm uterus, Dispel Cold basic points plus:
   - Moxa or Heat over Ren 8 (or San Jiu Jiao triangle)
   - Ren 4 – Nourishes Yin and blood, Strengthens Yang, tonifies Kidney and Yuan Qi, regulates the uterus and menses
   - Du 4 – Tonifies Kidney Yang, benefits Yuan Qi and Essence, expels cold from the interior of the body
   - ST 36 – Tonifies Qi and blood
   - BL 23 – Tonifies the Kidneys, nourishes the Essence
   - BL 52 – Tonifies the Kidneys, psycho-emotional support
   - BL 32 – Strengthens the lower Jiao, nourishes the Kidneys
   - Shiqizhuixia – Extra point located near the 17th vertebrae (below L5), treats irregular or painful menses, and lumbar and thigh pain

Dysmenorrhea

The TCM etiology and treatment of dysmenorrhea varies according to many factors and should take into account a patient's past and current menstrual cycles as well as other emotional and physical factors. With dysmenorrhea, there is *ALWAYS* pain and some form of blockage or stagnation (either qi or blood or both qi and blood). Dysmenorrhea may be caused by:

- ***Blockage of the meridians*** – the Ren and Chong, in particular, are closely related to the uterus. Blockage of these meridians as well as

blockage of the Kidney, Liver, and Du can lead to menstrual irregularities and pain.

- ***Emotional disorder*** – anger, grief, depression, etc. causing qi stagnation, which leads to blood stagnation and eventually may develop into stasis (i.e., blood clots)
- ***Overwork*** – excessive work can deplete the body and lead to deficiency of Liver blood, Kidney Qi, and Spleen Qi, which in turn affect the Ren and Chong
- ***Irregular diet*** – an irregular and poor diet or poor digestion can lead to dampness and phlegm, which may block meridians or form masses such as fibroids. Fibroids are considered an accumulation of phlegm and blood.
- ***Trauma/injury*** – traumas and injuries can cause blood stasis.
- ***Wind-cold invasion*** – Wind-cold can invade lower dan tian and attack the Shaoyin level before or during menses causing pain. This direct attack is called “zhi zhong.”

Basic points

- Ren 6 – Regulates Qi; tonifies Qi, Yang and Yuan Qi
- Zigong – Extra point for the uterus
- ST 25 – Tonifies Qi
- ST 28 – Treats dampness
- ST 29 – Promotes Qi flow
- SP 6 – Major gynecological point; affects Yin, blood, and dampness
- SP 8 – Xi Cleft point. Treats irregular menses, dysmenorrhea, and edema. Reduces blood stasis and stops pain. (Blood point).
- SP 9 – Resolves dampness
- BL 32 – Treats pain in lower back
- P 6 – Calms the mind, regulates blood
- Shiqizhuixia – Extra point located near the 17th vertebrae (below L5), treats irregular or painful menses, and lumbar and thigh pain

In addition to the basic points, you may also use LU 7 + KD 6 and/or SP 4 + P6 using a cross insertion pattern to regulate the Ren and Chong.

Pattern Differentiation

1. **KID and LIV Yin Xu—**Age 18 or older, no menarche, delayed growth, weak knees/lower back pain, hair loss, hearing problems, , Yin Xu signs, patient may shortness of breath or fatigue

   T – Pale, thin white coat

   P – Deep, thin, weak in rear

2. **Qi and Blood Xu**-- History of chronic illness, no menarche or irregular periods, fatigue, shortness of breath, poor appetite, poor memory, blurred vision, pale face, palpitations

   T – Pale, thin white coat

   P –Thready or thin, weak

3. **Qi Stagnation and Blood Stasis**—Irregular cycles with lots of clots, dark colored blood, pain, anxiety, depression, stress, anger, breast distension, mood swings, cramping, hypochondriac pain and distension

   T – Normal or purple with spots

   P – Wiry or choppy

4. **Turbid Phlegm Retention**-- Patient be overweight (Note: patient may also be thin or average weight), abdominal distension, gas and bloating, mucus, vaginal discharge, phlegm, chest distension (from phlegm), sweaty palms

   T – Pale, thick greasy white coat, moist

   P – Slippery

5. **Cold-Damp Accumulation in Uterus**--Cold hands and/or feet, cold feeling, relieved by warmth, delayed menses with cramps, sometimes scanty menses with dark or black blood, large clots, severe pain, may have chills/fever, pale complexion

   T – Greasy white coat

   P – Deep and tight

6. **Yang Deficiency with Internal Cold**—Severe lower abdominal pain, cold feeling, relieved by warmth, scanty menses with dark colored blood, weakness or pain in lower back, copious clear urination, patient may also have bloating or be overweight.

   T – Moist white coat

   P – Deep, slow, weak or tight

Acupuncture and Herbs

1. **KID and LIV Yin Xu**—Tonify KID and LIV, Regulate Ren and Chong, basic points plus
   - KID 3 – Tonifies the Kidneys, nourishes the Essence, regulates the uterus, treats low back pain
   - KD 6 – Nourishes Yin, cools blood, calms the mind, regulates the uterus
   - BL 23 – Tonifies the Kidneys, nourishes the Essence
   - BL 52 – Tonifies the Kidneys, psycho-emotional support
   - GB 39 – Nourishes the Essence
   - BL 18 – Benefits the Liver and Gallbladder
   - LV 8 – Nourishes Liver Blood

2. **Qi and Blood Xu**—Tonify Qi and Nourish Blood, regulate Chong and Ren, basic points plus
   - ST 36 – Tonifies Qi and Blood

- LV 8 – Nourishes Liver Blood
- BL 17 –Tonifies blood and Qi, moves stagnant blood
- BL 18 – Benefits the Liver and Gallbladder
- BL 20 – Tonifies Spleen Qi and Spleen Yang
- Ren 4 – Nourishes Yin and blood, Strengthens Yang, tonifies Kidney and Yuan Qi, regulates the uterus and menses

3. **Qi Stagnation and Blood Stasis**—Soothe and regulate LIV, Move Qi and Blood, regulate Chong and Ren, basic points plus:
   - LI 4 – Promotes Qi circulation, unblocks the channels
   - LV 3 – Promotes Qi circulation, especially Liver Qi
   - GB 34 – Unblocks channels, promotes Qi circulation
   - SP 10 – Cools blood, moves blood
   - BL 17 – Tonifies blood and Qi, moves stagnant blood
   - BL 18 – Benefits the Liver and Gallbladder
   - BL 19 – Relaxes the diaphragm, reduces stuffiness in the chest
   - LV 13 – Promotes Qi circulation, especially Liver Qi, benefits the Stomach and Spleen
   - LV 14 – Promotes Qi circulation, benefits the Stomach

4. **Retention of Turbid Phlegm** –Resolve Dampness and Transform Phlegm, basic points plus:
   - SP 9 – Resolves dampness in the lower Jiao
   - ST 40 – Transforms phlegm, resolves dampness, clears mind
   - ST 36 – Tonifies Qi and Blood, expels wind and damp from the channels
   - Ren 9 – Controls the water passages
   - Ren 12 – Treats dampness, tonifies Spleen and Stomach
     Ren 17 – Regulates Qi, opens chest

5. **Cold-Damp Accumulating in the Uterus**—Warm uterus, Dispel Cold, Resolve Dampness; Use basic points plus:
   - Moxa or Heat over Ren 8 (or San Jiu Jiao triangle)
   - ST 36 – Tonifies Qi and Blood; raises the Yang

- Ren 4 – Regulates the uterus and menses
- SP 9 – Resolves dampness
- ST 40 – Resolves dampness

6. **Yang Deficiency with Internal Cold**—Tonify the Yang, Warm the channels and uterus, relieve pain; Use basic points plus:
   - Moxa or Heat over Ren 8 (or San Jiu Jiao triangle)
   - ST 36 – Tonifies Qi and Blood
   - Ren 4 – Nourishes Yin and blood, Strengthens Yang, tonifies Kidney and Yuan Qi, regulates the uterus and menses
   - KD 3 – Tonifies the Kidneys, nourishes the Essence, regulates the uterus. (Treats any defiency of the Kidney: Yin, Yang, or Essence).
   - Du 20 – Raises the Yang
   - Du 4 – Tonifies Kidney Yang, benefits Yuan Qi and Essence, expels cold from the interior of the body
   - BL 52 – Tonifies the Kidneys, psycho-emotional support
   - BL 32 – Strengthens the lower Jiao, nourishes the Kidneys
   - Shiqizhuixia – Extra point located near the 17th vertebrae (below L5), treats irregular or painful menses, and lumbar and thigh pain

Menstrual Cycle Overview

Menstrual Cycle Overview			
Menses (Period) Cycle day 1 – 4	**Post-Menses** Cycle Day 5 – 12	**Mid-Cyle** Cycle Day 13-14	**Secretory/Luteal Stage** Cycle Day 15 - 28
Plan - Regulate blood flow • Regulate qi and Xue flow • May need to move Xue • Nourish Yin	**Plan – Tonify KD, Xue and Yin** • Tonify Kidney • Nourish Xue • Move Xue • Nourish Yin	**Plan – Tonify KD, Essence and Yin** • Tonify Kd • Nourish Essence and Yin • Regulate Ren and Chong • Tonify yang (if needed)	**Plan – Soothe Liver, Support Yang** • Soothe LV Qi • Balance Yin/Yang • Tonify and protect Yang • Supplement SP Yang
Points • PC 6 • Yintang • SP 6 • SP 10 • ST 36 • BL 32 • GB 34 • GB 41 • KD 3 • LV 5 • LV 8 • Shi Qi Zhui	**Points** • SP 6 • SP 10 • ST 36 • Fuke • Return to Nest • KD 3 • LV 5 • LV 8 • ST 29 • Four Gates • Zi gong	**Points** • KD 3 • KD 6 • KD 7 • KD 16 • Ren 4 • PC 6 • SP 4 • ST 29 • Four Gates • Du 20 • LV 8	**Points** • Sischenchong • Du 4 • Du 20 • Du 24 • ST 36 • BL 20 • BL 23 • BL 52 • Bai Liao • SP 8
Possible Formulas/Herbs • Tao Hong Si Wu Tang • Gui Zhi Fu Ling Tang • Dang Gui Si Ni San • Wen Jing Tang	**Possible Formulas/Herbs** • Si Wu Tang • Ba Zhen Tang • Gui Pi Tang • Zuo Gui Yin • Jia Wei Xiao Yao San	**Possible Formulas/Herbs** • Si Wu Tang • Ba Zhen Tang • Jia Wei Xiao Yao San	**Possible Formulas/Herbs** • Jin Gui Shen Qi Wan • Bu Zhong Yi Qi Tang • Si Ni San • You Gui Wan

Herbal Formula Analysis

Gui Pi Tang and Tao Hong Si Wu Tang

Gui Pi Tang is an important gynecological formula impacting the blood via its action of supplementing the Spleen qi and strengthening the Spleen function. The patient who has dream disturbed sleep, anxiety, and insomnia particularly benefits from this formula because of the mother child relationship of the Heart and Spleen and this formula's action of nourishing the heart and tonifying the blood.

Gui Pi Tang is an excellent choice for cases of blood deficiency due to Spleen deficiency resulting in anemia and dysfunctional uterine bleeding. Often the patient will also have a weak pulse, thin pulse, pale tongue, and in some cases low grade fever or heat. When regulating the menses, it is especially helpful to have the patient take Gui Pi Tang during the post-period phase to about cycle day 14 or ovulation. The following is a breakdown of this formula and the functions of the herbs:

- **Ren Shen**, *Radix Ginseng*, 3 - 9 g. Ren Shen strongly tonifies Qi, strengthens Spleen and Lung, generates fluids, alleviates fatigue, calms the mind. **Note:** Ren Shen, Huang Qi, Bai Zhu, and Zhi Gan Cao are all chief herbs in this formula.
- **Huang Qi**, *Radix Astragali Membranecei*, 9 - 12 g. Huang Qi powerfully tonifies Spleen Qi, alleviates fatigue, and stops Qi deficiency bleeding.
- **Bai Zhu,** *Radix Atractylodis Macrocephelae,* 9 – 12 g. Tonifies the middle Jiao, strengthens the Spleen and dries dampness.
- **Zhi Gan Cao,** *Radix Glycyrrhize Uralensis,* 3 – 6 g. Tonifies the Spleen, tonifies Qi, and warms the middle Jiao. Gan Cao usually also harmonizes the actions of the other herbs in a formula.
- **Dang Gui,** *Radix Angelicae Sinensis,* 6 – 9 g. Dang Gui and Huang Qi work together to nourishes the blood. Dang Gui helps regulate the menstrual flow in particular. **Note:** Dang Gui, Long

Yan Rou, Suan Zao Ren, Fu Shen, and Zhi Yuan Zhi are deputy herbs in this formula.

- **Suan Zao Ren,** *Semen Zizyphi Spinosae,* 9 – 12 g. This herb nourishes the blood, has an astringent effect on body fluids, and calms the mind.
- **Long Yan Rou,** *Arillus Euphoriae Longanae*, 6 – 9 g. Long Yan Rou has two functions in this formula: tonifies the blood and calms the mind.
- **Zhi Yuan Zhi,** *Radix Polygalae Tenuifoliae*, 3 – 6 g. This is the honey- fried preparation of Yuan Zhi. Helps the Qi flow to the Heart providing a calming an effect. This herb works especially well when balanced with Suan Zao Ren.
- **Fu Shen,** *Sclerotium Poriae Cocos Pararadicis*, 9 – 12 g. Fu Shen has a calming effect and helps support the Spleen tonics in this formula.
- **Mu Xiang,** *Radix Aucklandiae Lappae*, 3 – 6 g. This assistant herb regulates Qi, invigorates the Spleen, and prevents indigestion caused by the rick nature of the other herbs in this formula.

Traditional texts also recommend taking the formula with pieces of Da Zao (*Fructus Zizyphi Jujubae*) and Sheng Jiang (*Rhizoma Zingiberis Officinalis Recens*) to help improve the appetite and regulate the nutritive and protective Qi.

Tao Hong Si Wu Tang is another important gynecological formula. It treats blood deficiency and blood stasis. In particular, this formula nourishes Liver Blood. Symptoms may include floaters, dizziness, dry nails, and lusterless skin. Other symptoms include insomnia, dream-disturbed sleep, shortened menstrual cycle, copious bleeding, dark-sticky blood, clots and cramping.

Tao Hong Si Wu Tang is a modification of the famous Si Wu Tang (Four Substance Decoction) of the Tai Pi Era. Tao Hong Si Wu Tang helps

regulate the menses by tonifying and moving the blood. Its ingredients are as follows:

- **Chuan Xiong,** *Radix Ligustici Chuanxiong*, 3 g. Chuan Xiong moves blood and Qi. It also releases stagnation and relieves pain. It particularly opens up the Liver.
- **Dang Gui,** *Radix Angelicae Sinensis,* 6 g. Dang Gui nourishes and moves the blood. Dang Gui helps regulate the menstrual flow in particular and is considered the 'woman's tonic.'
- **Chao Bai Shao,** *Radix Paeoniea Lactiflorae*, 6 g. This is the dry-fried preparation of Bai Shao. Dry-frying nourishes the Yin. Bai Shao is an important herb for both tonifying the blood and Yin. (Chi Shao, *Radix Paeoniae Rubrae*, can be substituted for Bai Shao, *Radix Paeoniae Lactiflorae,* in a predominance of blood stasis).
- **Shu Di Huang,** *Radix Rehmanniae Glutinosae Conquitae,* 6 g. Shu Di Huang strongly tonifies the Liver blood.
- **Tao Ren,** *Semen Persica*, 6 g. Tao Ren dissolves or breaks up stasis and moistens the intestines.
- **Hong Hua,** *Flos Carthami Tinctorii*, 3g. Hong Hua powerfully moves menstrual blood. It invigorates the blood, breaks up stasis, and alleviates pain.

This formula can be used during menstruation. It is also treats the abdominal pain and distension caused by Liver constraint.

Case Study

Liver and Spleen Qi Dysfunction

A thirty 34 year patient, came to the acupuncture clinic to help regulate her cycles which tended to be slightly irregular—either too early or late by two or three days leading to 26 – 31 day cycles. She also had painful periods with pea-sized clots the first two days. The flow was moderate, lasting about 3 days and eventually tapering off an additional 2 days. When asked she was unsure whether she was ovulating every month or not. She began having irregular periods and mild insomnia one year ago when she changed jobs to a more demanding position. She often craved carbs and experienced bloating and gas frequently. She said her hands were always cold and that in general she felt more cold than hot. Over the course of her first 4 – 6 treatments, her pulse was typically wiry and her tongue slightly pale and swollen with teethmarks. The main focus of treatment, therefore initially was to soothe the Liver qi and to supplement her Spleen.

The first recommendation for this patient was to begin looking at ways to reduce her work stress and allocate time during the week for relaxation and regular exercise. The second recommendation was for her to begin charting her basal body temperature and cycle (either online or on paper) so that she could better track her cycles over a period of time. However, if the charting would create more stress for her, she was told she could keep a simple diary of when she ovulated and when her periods began and ended. The third recommendation was regarding dietary changes such as eliminate refined sugars, spicy foods, and during the luteal phase of her cycle particularly cold foods.

The patient was treated with the following point prescription and herbal formulas for the first month of treatment:

- Cycle Days 1 – 4**:** SP 6, 10, ST 28; GB 34, LV 5, LI 4, LV 3; Tao Hong Si Wu Tang
- Cycle Days 4 – 14: P 6, KD 3, LV 8, St 29, SP 4, LU 7; Ba Zhen Tang

- Cycle Days 14 – Menses: Yintang, GB 34, BL 23, Bl 52, Du 4; Si Ni San

All herbs were in tincture form. The patient took 20 drops (or about ½ dropper full) three times a day before meals. After about one month of treatment, the patient felt less stressed and her sleep pattern began to improve. After about three months of treatment her, periods became less painful and she no longer had clots. The bloating and food cravings were also reduced.

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