



Pregnancy Care Obstetrics Post Partum Care

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- Full time clinical practice since 2005
- Prior study in Chemical Engineering
- Published Author
- International Speaker
- Taught and mentored lots of students and practitioners
- Treated thousands of patients
- Work with complex women's health, autoimmune disease



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Healthy Pregnancy



1 Trimester



2 Trimester



3 Trimester



Birth

Healthy Pregnancy

Growth of the Baby: This is the most widely accepted theory, proposing that during menstruation, endometrial tissue flows backward through the fallopian tubes into the pelvic cavity where it implants and grows. However, this theory alone does not explain all cases of endometriosis, particularly those occurring outside the pelvis (Sourial et al., 2014), (Gupta et al., 2015).

Hormone Changes: This theory suggests that endometriosis arises from the transformation of peritoneal cells (which originate from the same embryonic tissue as endometrial cells) into endometrial-like cells. This transformation could be triggered by inflammation, hormones, or other factors (Vinatier et al., 2001).

Changes in Blood Volume: This theory posits that remnants of embryonic Müllerian ducts

could give rise to endometriosis, particularly in cases where the disease appears in unusual locations (Uğur et al., 1995).

Changes in Immune Function: Another theory suggests that abnormalities in immune function may allow endometrial cells to evade the body's natural defenses, implant in the peritoneal cavity, and grow unchecked (Osuga, 2010).

Changes in Ligaments: Recent evidence supports the involvement of stem cells in the development of endometriosis. This theory suggests that endometriotic lesions may originate from ectopic endometrial stem cells, which then differentiate and proliferate in response to hormonal and environmental cues (Maruyama & Yoshimura, 2012).





Pregnancy Problems

Pregnancy Problems

Spotting and Bleeding

- **Differentiating normal vs. concerning spotting.**
- **TCM patterns (e.g., Qi and Blood stagnation, Kidney deficiency).**
- **Western causes (implantation, ectopic pregnancy, subchorionic hemorrhage).**
- **Herbal support and acupuncture points for stabilizing pregnancy.**



Pregnancy Problems

Cramping & Pain

- **Identifying normal ligament pain vs. signs of miscarriage or preterm labor.**
- **Key herbs for pain relief without uterine stimulation.**
- **Acupuncture for pain management.**



Pregnancy Problems

Miscarriage

- **Risk factors: hormonal imbalances, autoimmune conditions.**
- **Preventative TCM care (e.g., Kidney Yang tonics, Blood-building herbs).**
- **Post-miscarriage recovery and support.**



Threatened Miscarriage



Threatened Miscarriage

- Global statistic: 10-15% of pregnancies will end in miscarriage
- Symptoms include:
 - Spotting and bleeding
 - Cramping & pain
 - Strong morning sickness symptoms fade before end of 1st trimester



Threatened Miscarriage

1

**Genetic
Abnormalities**

2

**Low
hormone
levels**

3

**Inflammation
&
Immune
System**



Threatened Miscarriage

Chinese Medicine Diagnosis

Common Presenting Patterns

- Spleen Qi not holding
- Spleen Qi not holding with Kidney Yang Xu
- Kidney Yang Xu with Liver Blood Xu
- Blood Stasis with Heat
- Blood Stasis with Cold

Threatened Miscarriage

Chinese Medicine Treatment

Acupuncture

Kd9

Du20 ++

Sj4 (+moxa)

Hrt7 or Hrt3

Kd27

Chong mai

Sp1 moxa

Sp3 (+moxa)

Herb additions

Tu si zi

Du Zhong

Sang ji sheng

E jiao

Xu Duan

Ai ye

Sha ren

Huang qin

Threatened Miscarriage

Chinese Medicine Diagnosis

Spleen Qi Not Holding

- Spotting or Bleeding
- Dizziness
- Easy bruising
- Platelets $<200 \times 10^9/L$
- P: weak, soft
- T: normal, or slightly pale

Bu Zhong Yi Qi Tang plus Gui Pi Tang modifications

Du20++, Sp1 moxa, Sp3 (+moxa), Hrt7

Threatened Miscarriage

Chinese Medicine Diagnosis

Bu Zhong Yi Qi Tang

- Huang Qi
- Ren Shen
- Bai Zhu
- Zhi gan cao
- Dang gui
- Chen pi
- Sheng ma
- Chai hu

Gui Pi Tang

- | | |
|----------------|----------------|
| • Huang Qi | • Suan zao ren |
| • Ren Shen | |
| • Bai Zhu | • Fu ling |
| • Zhi gan cao | • Yuan zhi |
| • Dang gui | • Mu Xiang |
| • Long yan rou | • Sheng jiang |
| | • Da zao |

Threatened Miscarriage

Chinese Medicine Diagnosis

Spleen Qi not holding with Kidney Yang Xu

- Spotting or bleeding
- Dizziness
- Easy bruising
- Platelets $<200 \times 10^9/L$, sodium $<140 \text{ mmol/L}$
- Lower back ache or pain
- P: weak, esp chi position

Bu Zhong Yi Qi Tang plus Shou Tai Wan (optional Gui Pi Tang)

Du20++, Kd9, Sp1 moxa, Sp3 (+moxa), Sj4 moxa, Kd7, Kd27

Threatened Miscarriage

Chinese Medicine Diagnosis

Kidney Yang Xu with Liver Blood Xu

- Dizziness
- Spotting or bleeding
- Lower back aching or pain
- Floaters
- Sodium <140mmol/L, GGT <15 U/L
- P: weak & soft OR weak & thready

Shou tai wan plus You Gui Wan

Du20++, Kd9, Sj4 moxa, Kd7, Kd27, Lv8, Hrt3

Threatened Miscarriage

Chinese Medicine Diagnosis

Blood Stasis with Heat

- Spotting or bleeding
- Excessive abdominal cramping
- History of autoimmunity, NK cells or uterine infection
- TgAb +ve, TPO +ve, Platelets $>250 \times 10^9/L$, WCC $>6.0 \times 10^9/L$
- P: choppy

Nikki or Post Womb Gu plus Shou Tai Wan

Du20++, Kd9, Lv2, Lv8, Pc6, Pc3

Threatened Miscarriage

Chinese Medicine Diagnosis

Blood Stasis with Heat and Damp

- Spotting or bleeding
- Excessive abdominal cramping
- History of autoimmunity, NK cells or uterine infection
- TgAb +ve, TPO +ve, Platelets $>250 \times 10^9/L$, WCC $>6.0 \times 10^9/L$
- P: choppy and rapid OR rapid and slippery

Dang Gui Shao Yao San plus Shou Tai Wan

Du20++, Kd9, Lv2, Lv8, Pc6, Pc3, Sp3, Gb41

Threatened Miscarriage

Chinese Medicine Diagnosis

Blood Stasis with Cold

- Spotting or bleeding
- Excessive abdominal cramping
- History of autoimmunity, NK cells or uterine infection
- TgAb +ve, TPO +ve, Platelets $>250 \times 10^9/L$, WCC $>6.0 \times 10^9/L$
- P: choppy

Wen Jing Tang

Du20++, Kd9, Sj4 moxa, cup ren8 + moxa, Kd3 moxa



Morning Sickness

Time of Day: Morning, Afternoon/evening, All Day

- PC6
- Pericardium channel
- LV13
- KD27
- SJ4
- ST36

Pregnancy Problems

Fatigue

- **Differentiating Qi deficiency, Blood deficiency, and hypothyroidism.**
- **Herbal adaptogens, safe nutritional strategies (e.g., iron, B12).**
- **Monitoring thyroid function and ferritin levels.**



Fatigue in Pregnancy

Herbal Formulas

Gui pi tang (Nourish)

You gui wan (Warm me up)

Ba zhen tang (Build)

Bu Zhong yi qi tang (Lift me up)

Pregnancy Problems

Insomnia

- **Causes: hormonal shifts, stress, and Yin deficiency.**
- **Acupuncture points for calming the Shen.**
- **Herbal formulas (e.g., Suan Zao Ren Tang) and magnesium supplementation.**



Insomnia

Heart and Kidney Disharmony

Etiology: Kidney Yin deficiency fails to cool and nourish the Heart, leading to Heart Fire and Shen disturbance.

Symptoms: Difficulty falling asleep, night sweats, restlessness, dry mouth, palpitations, and heat sensations in the evening.

Tongue: Red with little or no coating.

Pulse: Thin and rapid

Treatment:

Acupuncture:

HT7: Calms the Shen.

KD6: Nourishes Kidney Yin and calms restlessness.

SP4: Harmonizes Kidney and Heart, promotes relaxation.

Anmian (Extra Point): Promotes sleep.

Herbal Medicine:

Tian Wang Bu Xin Dan: Nourishes Yin and Blood, clears Heart Fire, and calms the Shen.

Dietary Therapy:

Include: Pears, cucumbers, sesame seeds, almonds, and barley to nourish Yin, dairy products.

Avoid: Spicy and fried foods, coffee, which may exacerbate Heat.

Lifestyle:

Evening relaxation rituals, mindfulness practices, and avoiding screen time before bed



Insomnia

Liver Qi Stagnation Transforming into Heat

Etiology: Emotional stress causes stagnation of Liver Qi, which generates Heat, disturbing the Shen.

Symptoms: Restless sleep, vivid dreams, irritability, rib-side discomfort, and difficulty relaxing before bed.

Tongue: Red edges or pale with a red tip.

Pulse: Wiry or rapid.

Treatment:

Acupuncture:

LV3: Smooths Liver Qi and relieves stress.

PC6: Calms the Shen and alleviates emotional tension.

GB34: Resolves Qi stagnation and relaxes tension.

Anmian (Extra Point): Promotes relaxation and sleep.

Herbal Medicine:

Chai Hu Shu Gan San: Smooths Liver Qi and clears Heat.

Dietary Therapy:

Include: Green tea (moderate), peppermint, celery, lemon, and bitter greens to move Liver Qi.

Avoid: Greasy foods and alcohol, which exacerbate Heat.

Lifestyle:

Gentle exercises like yoga, tai chi, or walking to move Liver Qi.
Stress management techniques like deep breathing or journaling.



Insomnia

Heart Blood Deficiency

Etiology: Insufficient Blood fails to nourish the Heart and Shen, often caused by anemia, poor diet, or overwork.

Symptoms: Difficulty staying asleep, fatigue, pale complexion, dizziness, palpitations, and forgetfulness.

Tongue: Pale and thin.

Pulse: Thin and weak.

Treatment:

Acupuncture:

HT7: Calms the Shen and nourishes Heart Blood.

SP6: Supports Blood production and calms the mind.

ST36: Strengthens Qi and Blood.

Anmian (Extra Point): Promotes sleep.

Herbal Medicine:

Suan Zao Ren Tang: Nourishes Blood, calms the Shen, and supports restful sleep.

Dietary Therapy:

Include: Dark leafy greens, beets, dates, eggs, chicken, and goji berries to nourish Blood.

Avoid: Overconsumption of cold or raw foods, which weakens digestion and Blood production.

Lifestyle:

Gentle stretching or relaxation routines before bed.
Prioritize nourishing meals throughout the day.



Insomnia

Spleen and Stomach Disharmony

Etiology: Improper eating habits or overburdened digestion disrupt the Stomach's descending Qi, affecting sleep.

Symptoms: Insomnia with bloating, acid reflux, nausea, or a sense of fullness.

Tongue: Thick, greasy coating.

Pulse: Slippery or weak.

Treatment:

Acupuncture:

SP6: Supports Spleen Qi and harmonizes digestion.

ST36: Strengthens the Spleen and improves digestion.

Ren12: Harmonizes the Stomach and alleviates fullness.

PC6: Eases nausea and regulates digestion.

Herbal Medicine:

Ban Xia Hou Po Tang: Resolves phlegm, harmonizes digestion, and calms the mind.

Dietary Therapy:

Include: Warm, easy-to-digest foods like soups, congee, and steamed vegetables.

Avoid: Heavy, greasy foods, overeating, and eating late at night.

Lifestyle:

Eat smaller meals more frequently, chew thoroughly, and avoid lying down immediately after eating.



Insomnia

Phlegm-Heat Disturbing the Shen

Etiology: Accumulated Dampness and Heat disturb the mind, often seen in individuals with poor diet or chronic stress.

Symptoms: Restlessness, heavy-headed feeling, vivid dreams, and difficulty falling asleep.

Tongue: Thick yellow coating.

Pulse: Slippery and rapid.

Treatment:

Acupuncture:

ST40: Resolves phlegm and clears Heat.

LI11: Clears Heat and reduces inflammation.

SP6: Harmonizes the Spleen and transforms Dampness.

Anmian (Extra Point): Calms the Shen.

Herbal Medicine:

Wen Dan Tang: Clears phlegm-Heat and calms the mind.

Dietary Therapy:

Include: Bitter and cooling foods like dandelion greens, celery, and radishes.

Avoid: Dairy, fried foods, and excessive sweets.

Lifestyle:

Incorporate gentle movement and avoid prolonged sedentary habits.
Practice mindfulness to reduce stress.



Pregnancy Problems

Anxiety and Depression

Heart and Kidney Disharmony

- Symptoms: Anxiety, restlessness, insomnia, palpitations, and night sweats.
- Tian Wang Bu Xin Dan

Liver Qi Stagnation

- Symptoms: Irritability, frustration, mood swings, chest tightness, and sighing.
- Chai Hu Shu Gan San

Heart Blood Deficiency

- Symptoms: Low mood, fatigue, poor memory, palpitations, and difficulty staying asleep.
- Suan Zao Ren Tang

Spleen and Heart Deficiency

- Symptoms: Anxiety, overthinking, poor appetite, fatigue, and palpitations.
- Gui Pi Tang

Yin Deficiency with Heat

- Symptoms: Anxiety, restlessness, dry mouth, night sweats, and irritability.
- Liu Wei Di Huang Wan



Pregnancy Problems

Allergies

- **Lung Qi Deficiency**
- Symptoms: Recurrent sneezing, nasal congestion, weak immunity, shortness of breath.
- Yu Ping Feng San
- **Wind-Heat**
- Symptoms: Sneezing, itchy nose, red or watery eyes, nasal discharge, and sore throat.
- Sang Ju Yin
- **Wind-Cold**
- Symptoms: Nasal congestion, clear runny nose, sneezing, and sensitivity to cold.
- Xiao Qing Long Tang
- **Spleen Qi Deficiency with Dampness**
- Symptoms: Chronic nasal congestion, heavy sensation, phlegm in the throat, and digestive issues.
- Liu Jun Zi Tang
- **Blood Deficiency with Wind**
- Symptoms: Skin allergies, hives, itching, or dry rashes with a pale complexion.
- Dang Gui Yin Zi



Pregnancy Problems

Constipation

- **Addressing intestinal dryness and Qi stagnation.**
- **Safe laxative herbs (e.g., Huo Ma Ren).**
- **Importance of hydration, fibre, and magnesium.**



Pregnancy Problems

Pelvic Pain

- **Causes: symphysis pubis dysfunction, sciatica.**
- **Acupuncture points and cupping techniques for relief.**
- **Role of posture and exercise.**



Pregnancy Problems

IUGR (Intrauterine Growth Restriction)

- **Supporting fetal growth through Kidney and Spleen Qi tonification.**
- **Nutritional interventions: protein, DHA, and addressing anemia.**
- **Monitoring with ultrasounds and Dopplers.**



Pregnancy Problems

Gestational Diabetes

- **TCM view of Spleen Qi deficiency and Damp-Heat.**
- **Diet modification: low glycemic load, chromium supplementation.**
- **Acupuncture for glucose regulation.**



Pregnancy Problems

PUPPS

**(Pruritic Urticarial Papules and Plaques
of Pregnancy)**

- **TCM Liver Heat and Blood
Dryness.**



Pregnancy Problems

Cholestasis

- **TCM Liver Qi stagnation and Damp-Heat management.**
- **Nutritional support for bile flow (e.g., choline, milk thistle).**
- **Importance of close monitoring for fetal risks.**



Pregnancy Problems

Pre-eclampsia

- **TCM management of Liver Yang rising and Damp-Heat.**
- **Magnesium, calcium, and protein supplementation.**
- **Importance of blood pressure monitoring and integrative care.**



Labour Induction



Labour Induction Considerations

Why the Rush?

- **Discussing medical indications vs. natural timelines.**
- **TCM perspective on readiness of Qi and Blood.**



Labour Induction Considerations

Baby Positioning

- **Techniques for breech or transverse positions (moxibustion, positional exercises).**
- **Acupuncture points for encouraging optimal fetal position.**



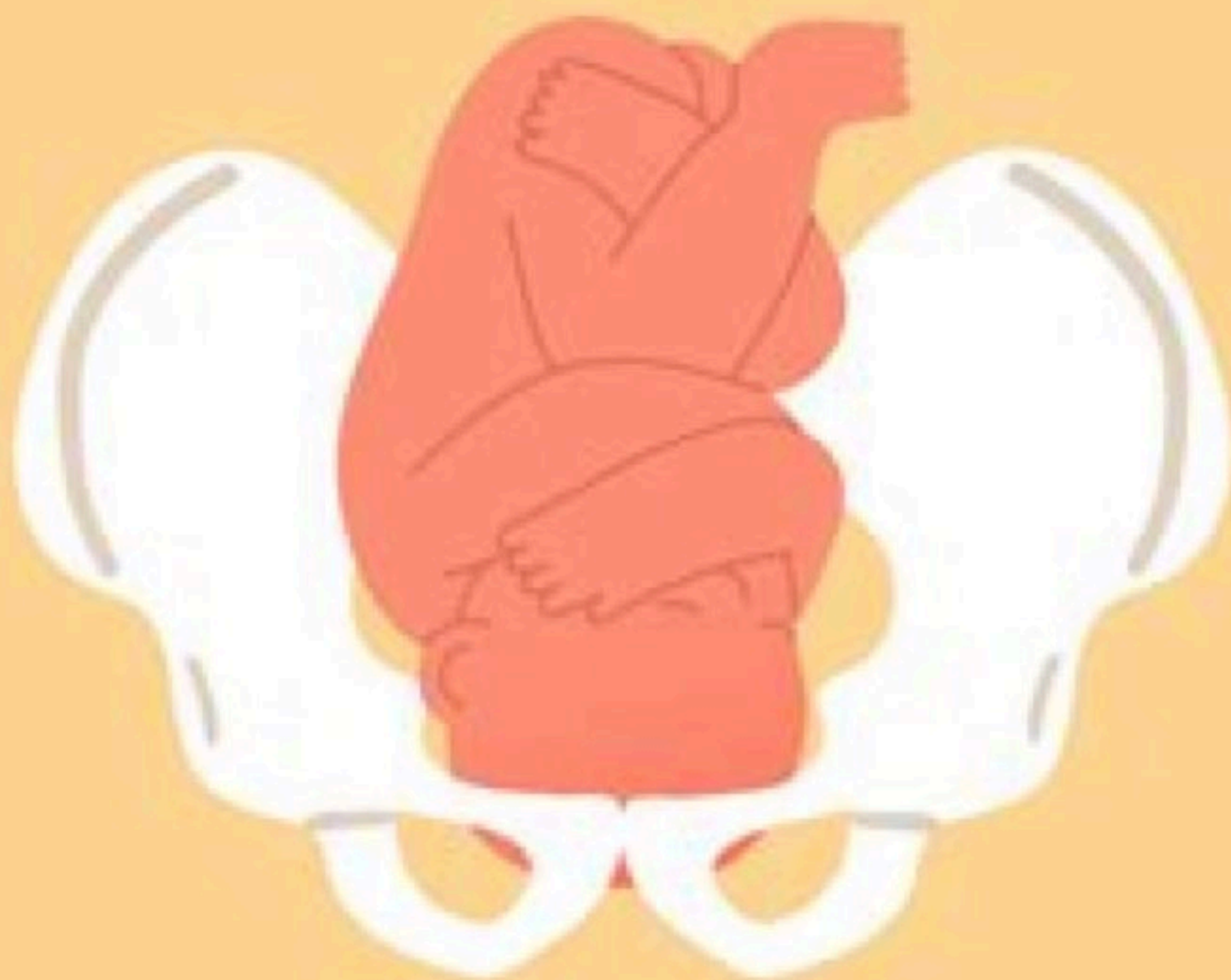
Labour Induction Considerations

Baby Positioning (34-36w ideal)

- **BL67 (+/- moxa)**
- **Gua sha and needling along bladder channel**
- **ST 36, BL60, GB39, GB34, GB41**



Right Occiput Posterior (ROP)



Left Occiput Posterior (LOP)



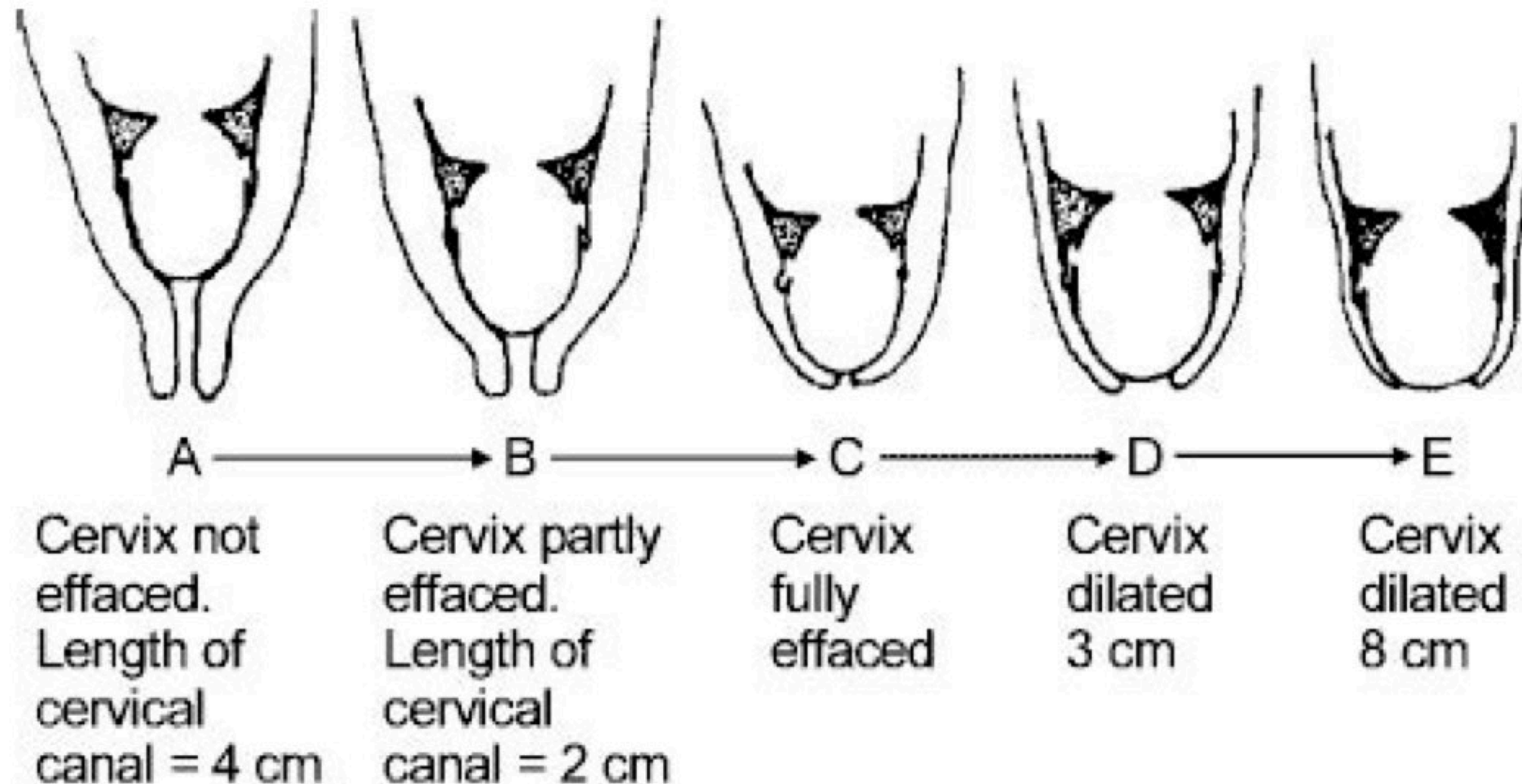
Labour Induction Considerations

Cervix Effacement and Dilation



Labour Induction Considerations

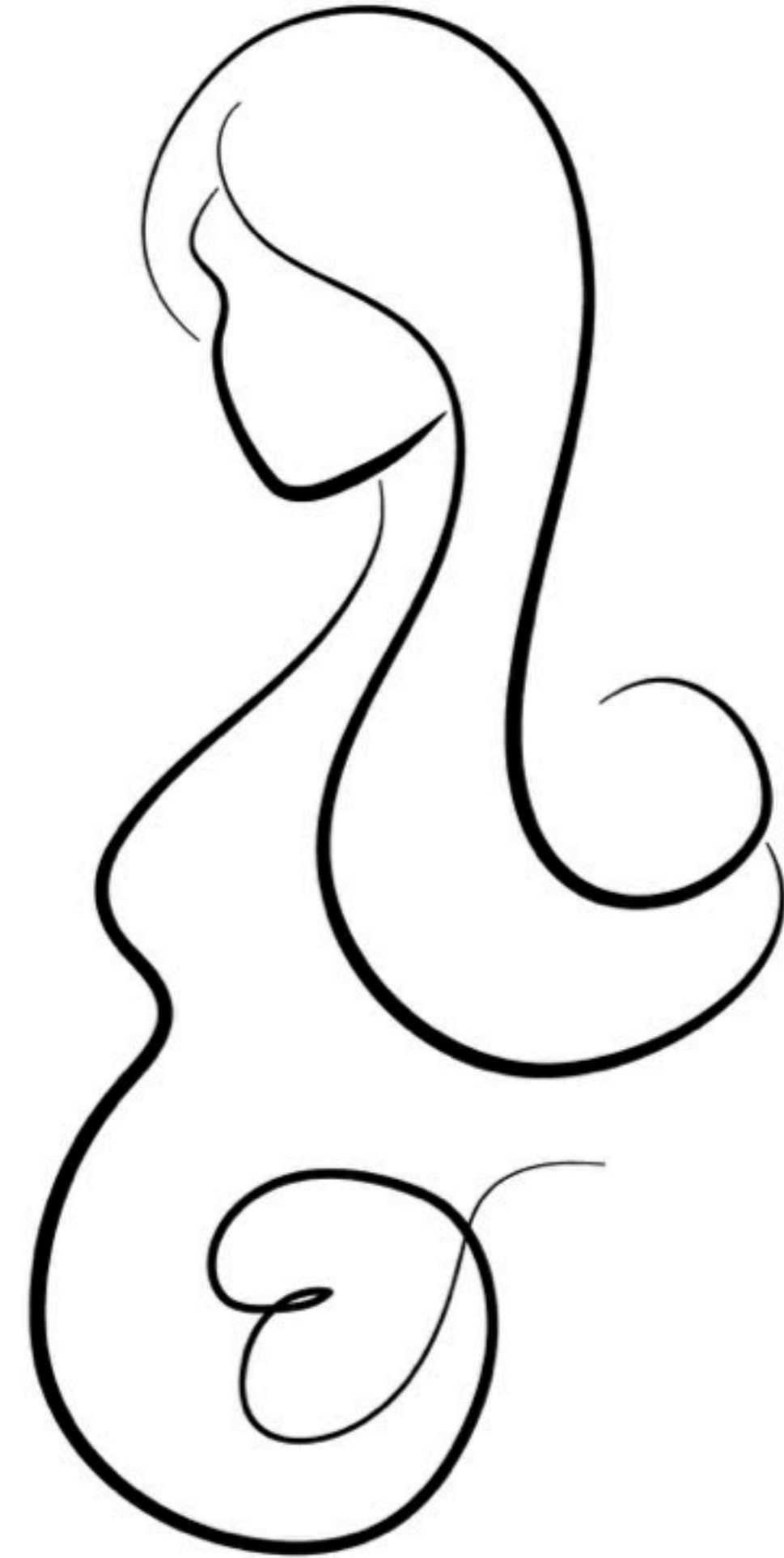
Cervix Effacement and Dilation



Labour Induction Considerations

Braxton Hicks

- **Differentiating false vs. true labor.**
- **Strategies to manage discomfort (hydration, rest, acupuncture).**



Labour Induction Considerations

Qi and Yin Readiness

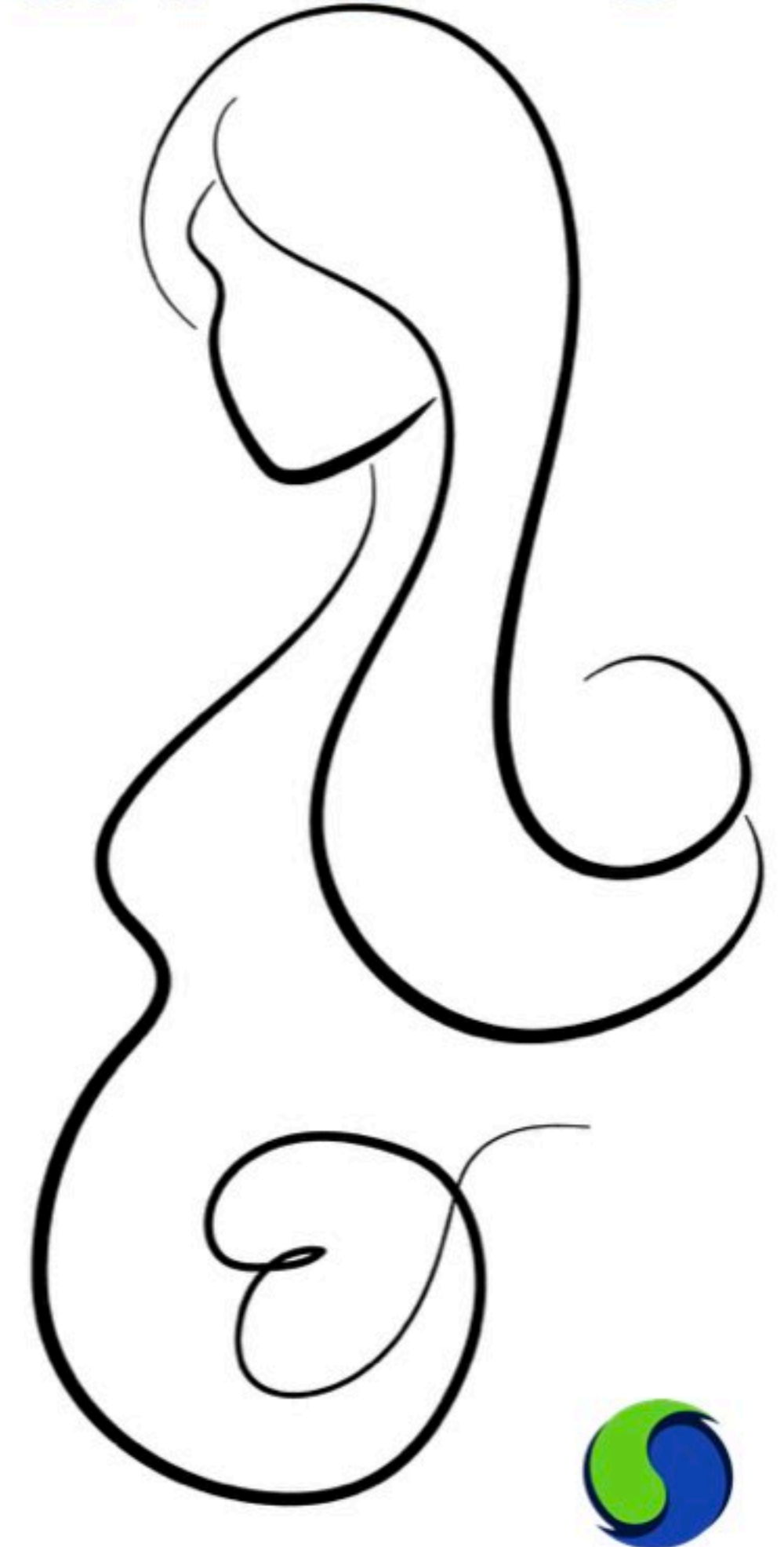
- Softening and ripening of the cervix (indicating sufficient Yin).
- Regular, rhythmic contractions (indicating sufficient and smooth-flowing Qi).
- Adequate lubrication and elasticity in the vaginal canal (Yin health).
- Calm yet energized state of the mother (balance of Qi and Blood).

Harmonious Relationship:

Labor requires the interplay of Yin and Qi, where Yin provides the substance and lubrication, while Qi drives the process forward.

Transition from Yin to Yang:

Toward the onset of labor, there is a shift from the stabilizing Yin to the active and dynamic Yang energy, marking the start of uterine contractions.



Labour Induction Considerations

Yin Readiness

Role of Yin: Yin in TCM represents the nourishing, cooling, and stabilizing aspects of the body. It governs the fluids, Blood, and substance necessary for sustaining pregnancy and enabling uterine contractions.

Preparation for Labor:

Adequate Yin ensures sufficient amniotic fluid for lubrication and elasticity of the cervix.

Yin nourishes Blood, which supports uterine contractions and prevents dryness or tension.

Signs of Yin Deficiency:

Dryness of the vaginal canal.
Premature or weak contractions.
Heat sensations or irritability during late pregnancy.



Labour Induction Considerations

Qi Readiness

Role of Qi: Qi is the active, dynamic force responsible for movement, including the descent of the fetus, dilation of the cervix, and progression of labor.

It ensures the rhythmic flow of uterine contractions.

Preparation for Labor:

Smooth Qi flow supports the opening of the cervix and the downward movement of the fetus.

Sufficient Qi reserves prevent exhaustion during prolonged labor.

Signs of Qi Deficiency:

Weak or irregular contractions.

Delayed or prolonged labor.
Fatigue or inability to push effectively.



Labour Induction Considerations

Factors influencing Qi and Yin Readiness

Kidney Energy:

The Kidneys are the source of both Yin and Yang, and their strength determines the overall vitality during labor.

Kidney Yin provides nourishment, while Kidney Yang supports the energetic drive for delivery.

Spleen and Stomach:

Spleen Qi ensures adequate nourishment to the uterus and fetus, while Stomach Qi aids in digestion and energy production.

Weak Spleen Qi can lead to fatigue or insufficient energy for contractions.

Liver Qi:

Liver Qi regulates the smooth flow of energy, helping the uterus contract and the cervix dilate. Stagnation of Liver Qi can result in tension or pain during labor.

Blood and Yin

Balance:

Sufficient Blood supports the integrity of uterine tissues and prevents excessive bleeding.

Deficiency in Blood or Yin can lead to dryness, weak contractions, or prolonged labor.



Labour Induction Considerations

Acupuncture Points

For Yin Nourishment:

SP6: Harmonizes the Spleen, Liver, and Kidneys, nourishing Yin and Blood.

KD6: Tonifies Kidney Yin and promotes fluid balance.

Ren4: Strengthens Yin and nourishes the uterus.

KD2: Clears heat, nourishes fluids and yin.

GB39: Softens tendons

LV8: Nourishes liver yin and softens tendons

For Qi Regulation:

ST36: Strengthens Qi and Blood, preventing fatigue during labor.

LI4: Promotes Qi movement and assists with cervical dilation.

GB34: Resolves Qi stagnation and relaxes tension.

LR3: Threaded to KD1, strongly regulates and descends Qi.

LV8: Nourishes liver yin and softens tendons

Sacral holes: strongly invigorates Qi in the pelvis



Labour Induction Considerations

Herbal Medicines

Yin Support: Formulas like Zhi Bai Di Huang Wan to nourish Kidney Yin and prevent dryness.

Qi Strengthening: Formulas like Bu Zhong Yi Qi Tang to support Spleen Qi and overall energy reserves. Substitute huang qi and sheng ma for herbs without a lifting action

Labor Preparation: Formulas such as Shi Quan Da Bu Tang for Qi and Blood support may be used in late pregnancy.

Ping Wei San can be added to any formula to support downward movement of qi.

Add shen calmers to keep mum calm and focused during labour



Labour Induction Considerations

Induction Treatment

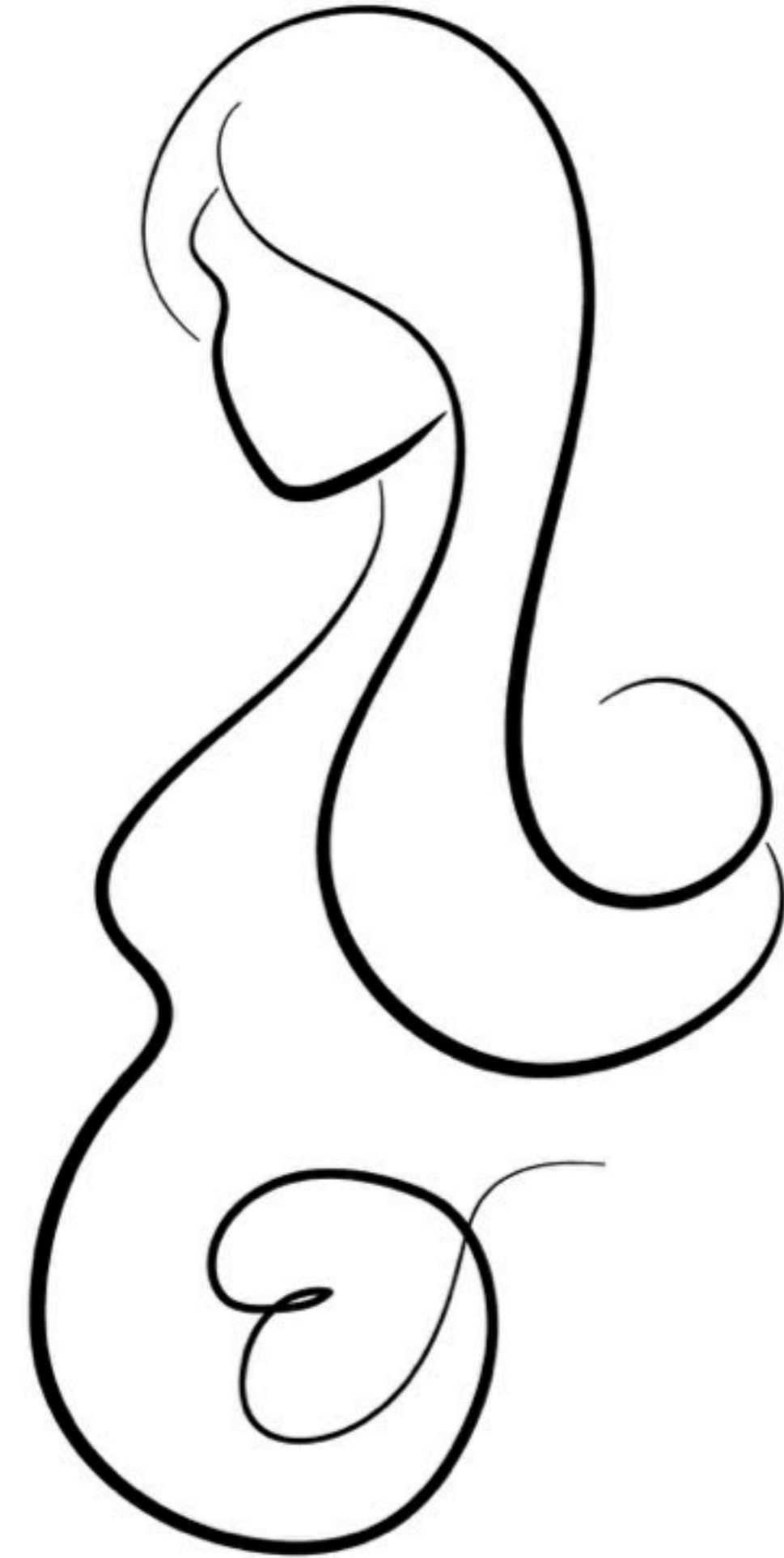
- **Medical interventions: oxytocin, prostaglandins, stretch and sweep.**



Labour Induction Considerations

Contractions

- **Acupressure points to facilitate contractions (e.g., SP6, LI4).**



Labour Induction Considerations

Acupressure During Labour

- **Teaching points for pain relief and relaxation.** <https://acupuncture.rhizome.net.nz/>
- **Partner involvement and practical application.**



Post Partum Problems









Post Partum Problems

Breastfeeding Problems

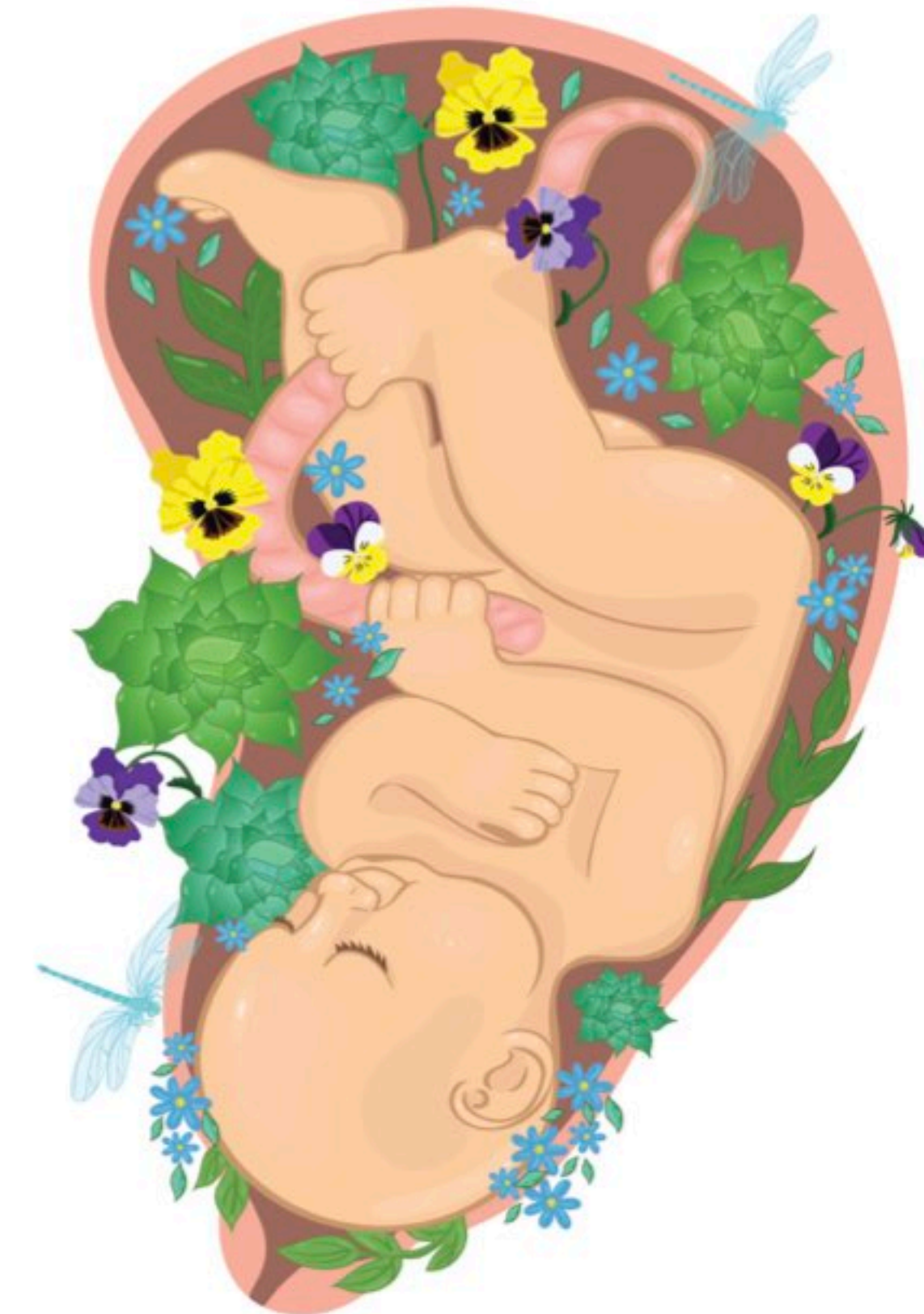
- **TCM approach to insufficient lactation (Spleen and Stomach Qi and Blood).**
- **Herbs to boost milk production (e.g., Fenugreek, Dang Gui, Tong Cao, Wang bu liu xing).**
- **Nutrition: protein, carbs, adequate calories (3000+ calories per day)**



Post Partum Problems

Mastitis

- **Exhaustion + “Pissed off”**
- **Flu symptoms + Extreme breast tenderness**
- **Requires prompt treatment**
- **Herbs, topical iodine on breast, express or have baby feed from affected breast as often as possible.**
- **Harmonising formula + Strong antibacterial herbs**



Post Partum Problems

Retained Placenta

- **For Scanty or Retained Lochia with Pain:** Sheng Hua Tang: Resolves Blood stasis and warms the uterus.
- **For Lingering Lochia or Mild Stasis:** Gui Zhi Fu Ling Wan or Yi Mu Cao Tang: Focuses on gentle Blood movement and uterine contraction.
- **For Qi and Blood Deficiency:** Ba Zhen Tang or Tao Hong Si Wu Tang: Tonifies the mother to promote recovery while maintaining normal lochial discharge.
- **For Delayed or Blocked Lochia:** Tong Jing Wan: Opens obstruction and invigorates Blood flow.



Post Partum Problems

Prolonged Lochial Discharge

- **Addressing Qi and Blood stagnation, Qi and Blood deficiency.**
- **Caution for retained placenta.**



Post Partum Problems

Postpartum Mood Disorders

- **TCM focus on Blood deficiency and Shen disturbances.**
- **Gui pi tang. Ba zhen tang. An shen ding zhi wan.**
- **Integrative care: omega-3, 5-htp. psychotherapy, acupuncture. Nutrition.**



Post Partum Problems

Postpartum Immune System Issues

- **Strengthening Wei Qi through nutrition and adaptogens.**
- **Managing autoimmune flare-ups (e.g., Hashimoto's thyroiditis).**



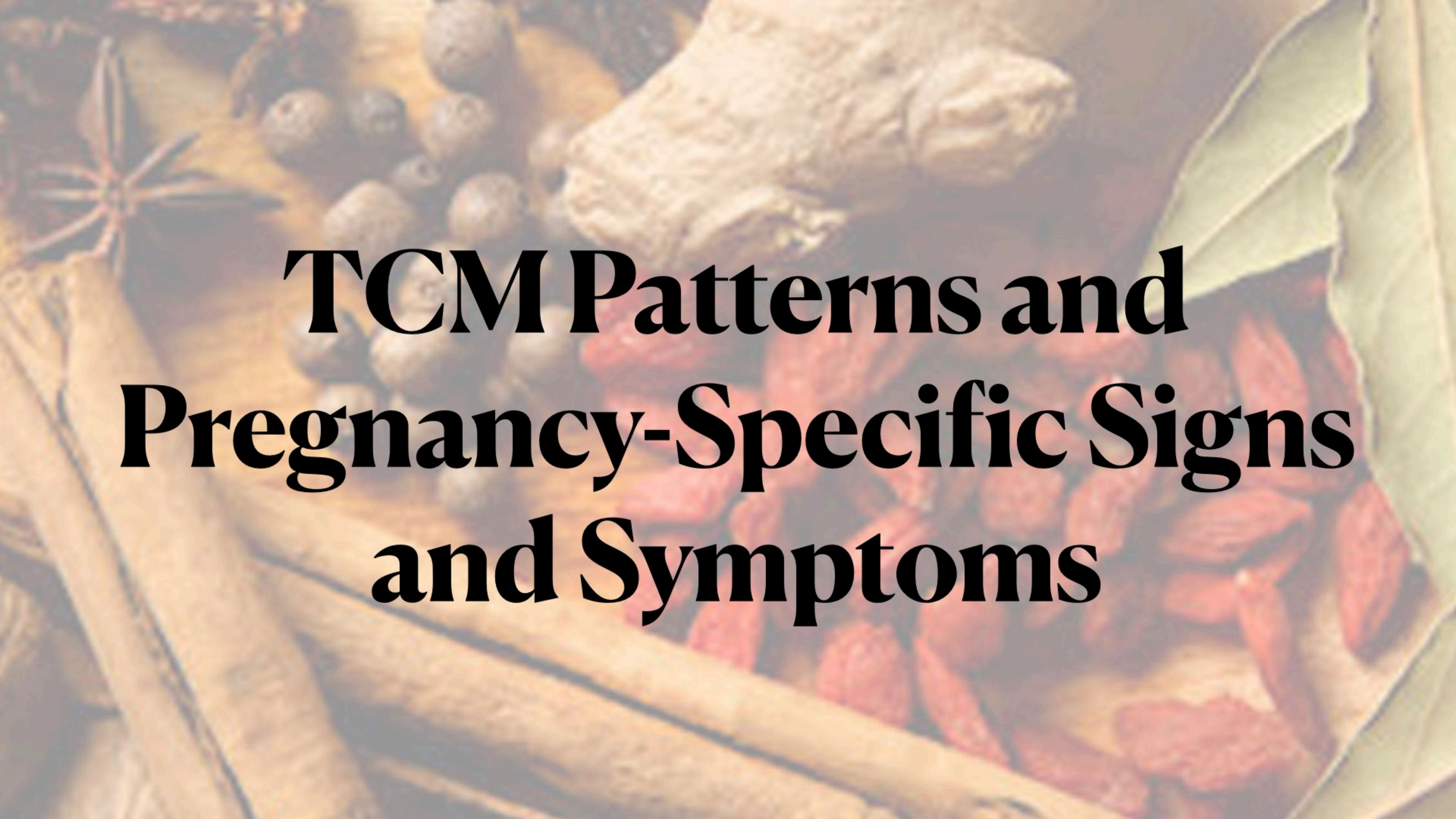
Post Partum Problems

Pelvic Floor Dysfunction

Kidney deficiency

- Jin ying zi 12
- Sheng ma 6
- Yi zhi ren 9
- Dong chong xia cao 9
- Sheng di 12
- Shan zhu yu 9
- Ren shen 9
- Fu pen zi 12
- gou qi zi 9
- Fu ling 9
- Gan cao 6





TCM Patterns and Pregnancy-Specific Signs and Symptoms

Qi Deficiency

Etiology: Chronic overwork, poor diet, or excessive bleeding during early pregnancy or postpartum can weaken Qi. During pregnancy, this can lead to insufficient energy to support the uterus and fetus, causing fatigue, spotting, or difficulty maintaining pregnancy.

Symptoms: Fatigue, shortness of breath, pale complexion, weak voice, loose stools, abdominal distension, spotting, and prolonged lochial discharge postpartum.

Tongue: Pale, swollen with tooth marks, and thin white coat.

Pulse: Weak or empty.

Pathology tests: Low Hb, low hematocrit, low albumin, low blood pressure, mild anemia.

Comorbidities: Threatened miscarriage, postpartum anemia, chronic fatigue syndrome, IBS, frequent colds or infections.



Qi Deficiency

Bu Zhong Yi Qi Tang

- * Huang qi
- * Ren shen
- * Bai zhu
- * Gan cao
- * Dang gui
- * Chen pi
- * Sheng ma
- * Chai hu



Qi Deficiency

Tai Shan Pan Shi San

- * Ren Shen
- * Huang Qi
- * Bai Zhu
- * Gan Cao
- * Dang Gui
- * Bai Shao
- * Chuan Xiong
- * Xu Duan
- * Huang Qin
- * Sha Ren
- * (Nuo Mi) (sticky rice)



Qi Deficiency

Zang fu/Primary Channels

- * Ren12: Supports digestion and strengthens the Spleen.
- * LU9: Strengthens Lung Qi to support overall Qi of the body.
- * BL20: Tonifies the Spleen to improve Qi production.
- * ST36: Strengthens Qi and Blood, supports overall vitality.
- * Du20: Raises yang, supports pregnancy
- * Sp3: Strengthens Spleen Qi to support overall Qi production

Qi Deficiency

Diet Recommendations:

- * Whole grains (e.g., rice, millet, quinoa) to support energy production.
- * Cooked vegetables (e.g., sweet potatoes, carrots, squash).
- * Protein-rich foods such as eggs, lean meat, tofu, and legumes.
- * Warm soups, broths, and congee to strengthen digestion and nourish Qi.
- * Avoid: Cold, raw, or damp-producing foods such as salads, dairy, and iced drinks, which can weaken the Spleen.

Supplements:

- * B Complex: Supports energy metabolism and reduces fatigue, particularly B1 (thiamine), B2 (riboflavin), and B12.
- * Coenzyme Q10 (CoQ10) ubiquinone: Enhances mitochondrial energy production and heart qi.
- * Magnesium: Reduces fatigue and improves muscular and cellular energy. Supports liver qi.
- * Vitamin C: Supports adrenal function and enhances absorption of iron. Supports kidney qi and yin.
- * Probiotics: Improves digestive function and nutrient absorption, key for Spleen Qi deficiency. Look for strains like Lactobacillus rhamnosus and Bifidobacterium breve.
- * Collagen or Protein Supplements: Helps strengthen tissues and supports digestion. Use clean, pregnancy-safe options like hydrolyzed collagen or whey protein.





Blood Deficiency

Etiology: Chronic illness, poor nutrition, excessive menstrual bleeding, or heavy postpartum hemorrhage can deplete Blood. In pregnancy, Blood deficiency can result in insufficient nourishment for the fetus or complications like insomnia and dizziness.

Symptoms: Pale complexion, dizziness, palpitations, insomnia, dry skin, fatigue, scanty fetal movements, constipation, dry mouth, and hair loss.

Tongue: Pale and dry with thin white coating.

Pulse: Thready and weak

Pathology tests: Low ferritin, low Hb, low MCV, low hematocrit, low transferrin saturation.

Comorbidities: Anemia, hypothyroidism, chronic fatigue, vertigo, migraines, postpartum depression.



Blood Deficiency

Si Wu Tang

- * Shu di
- * Dang gui
- * Bai shao
- * Chuan xiong

- * + tu si zi
- * + ren shen
- * + long yan rou
- * + ye jiao teng



Blood Deficiency

Zang fu/Primary Channels

- * LR8: Tonifies Blood and Yin.
- * ST36: Strengthens Qi and Blood, supports overall vitality.
- * BL20: Back-Shu point of the Spleen, helps in generating Blood.
- * BL17: Influential point of Blood, nourishes Blood.
- * Ht3: Nourishes Blood, calms shen.
- * Du20: Raises yang, supports pregnancy

Blood Deficiency

Divergents

- * Divergent Channels represent pathways that branch off from the main meridians and reach deeper into the body, often connecting with organs and the zang-fu that are not directly reached by the regular meridians.
- * They are used to treat complex and deep-seated conditions, especially when there is involvement of multiple organ systems.
- * Divergent channel treatments can be particularly effective for chronic conditions like endometriosis, which may involve multiple patterns and complex pathologies.
- * Divergent channels use their associated resources to hold pathology in latency, and when well resourced will vent out pathology via the sinew channels.
- * 1st: Kidney/Bladder: Marrow
- * 2nd: Liver/Gall Bladder: Blood
- * 3rd: Spleen/Stomach: Thin Fluids
- * 4th: Heart/Small Intestine: Thick Fluids
- * 5th: Pericardium/San Jiao: Qi
- * 6th: Lung/Large Intestine: Yang



Blood Deficiency

Liver (Second) Divergent

- * GB1 & Ren2: confluent points of Liver divergent.
- * Lv5: opening point for liver divergent
- * GB25:
- * GB24: Harmonizes the Liver and Gallbladder to regulate the smooth flow of Liver Qi and blood
- * Lv14: Regulates and moves Liver Qi and Blood
- * Lv13: Harmonizes the Spleen and Liver, enhances the production of Blood
- * Ren14: Calms the Heart and tonifies Blood
- * PC1: Opens the chest, regulates Qi and Blood circulation
- * Ren22: Unblocks the chest, harmonizes Qi
- * St12: Promotes the descent of Qi and Blood
- * St5: Clears wind from the channel



Blood Deficiency

Heart (Fourth) Divergent

- * GB22 & BL1: confluent points of Heart divergent.
- * Ht1: Opening point of Heart divergent
- * Ren17: regulates the Qi in the chest and nourishes Yin by opening the chest and facilitating the movement of Qi and fluids
- * Ren22: directing Qi and fluids downward, helping to prevent the accumulation of pathological fluids (phlegm) and supporting the proper circulation of ye (thick) fluids
- * Ren23: promoting the production and movement of fluids, particularly in the throat and mouth



Blood Deficiency

Diet Recommendations:

- * Iron-rich foods: Lean red meat, liver, eggs, spinach, kale, and legumes (lentils, chickpeas).
- * Blood-nourishing foods: Beets, dark leafy greens, black beans, and molasses.
- * Healthy fats: Avocados, nuts, seeds, and olive oil to help absorb fat-soluble vitamins and support overall nourishment.
- * Cooked foods: Prefer warm, cooked foods over raw foods to support digestion and nutrient absorption.

Supplements:

- * Iron: Preferably in a form that is easy to absorb, such as ferrous bisglycinate, to address anemia or low iron levels.
- * Multimineral supplement: Essential for building all the elements of blood, helps to correct deficiency and provide cofactors for hormone production.
- * Folate: Supports the formation of red blood cells and overall Blood health.
- * Maca: Enhances hormone production.





Yin Deficiency

Etiology: Chronic stress, poor sleep, overuse of stimulants, or dehydration can lead to Yin deficiency. In pregnancy, the body's increased demand for Yin can exacerbate symptoms like night sweats, anxiety, and insomnia.

Symptoms: Hot flashes, night sweats, insomnia with frequent waking, dry mouth, restlessness, scanty amniotic fluid, poor fetal growth, and dry skin or constipation.

Tongue: Red with little or no coat, dry.

Pulse: Thin and rapid.

Pathology tests: Elevated FSH, low AMH, low estradiol, high urea, and mild dehydration markers.

Comorbidities: Anxiety, depression, insomnia, IUGR, polyhydramnios, skin conditions (e.g., eczema).



Kidney Yin Deficiency

Alchemy Cool and Moisten

(Gui shao di huang wan)

- * Shu di
- * Shan zhu yu
- * Shan yao
- * Fu ling
- * Ze xie
- * Mu dan pi
- * Bai shao
- * Dang gui
- * + bai he
- * + long yan rou
- * + bai zi ren (if constipated)



Kidney Yin Deficiency

- * KD3: Tonifies Kidney Qi
- * BL23: Back-Shu point of the Kidneys, tonifies Kidney Qi and Yin
- * Ren4: Tonifies Kidney Yin and nourishes Kidneys
- * KD6: Nourishes Kidney Yin and clears deficiency heat.
- * LU7: Paired with KD6 to nourish Yin (Ren Mai and Yin Qiao Mai).
- * KD2: Clears deficiency heat from the Kidneys.
- * KD8: Nourishes Kidney Yin, water point on Kidney channel.



Kidney Yin Deficiency

Diet Recommendations:

- * Yin-nourishing foods: Pears, black sesame seeds, seaweed, tofu, and millet.
- * Cooling foods: Cucumbers, watermelon, and spinach to balance internal heat.
- * Hydrating foods: Soups, broths, and foods with high water content to moisten and nourish Yin.
- * Avoid: Spicy, fried, and excessively hot foods that can further deplete Yin.

Supplements:

- * Zinc: Nourishes Kidney Yin and corrects dryness. Vital for immune system and reproductive function.
- * Calcium: Dense mineral that nourishes Kidney Yin and anchors the shen.
- * Vitamin E: Helps protect cells from oxidative damage and supports skin hydration.
- * Vitamin C: Cooling, helps with iron absorption.





Yang Deficiency

Etiology: Chronic exposure to cold, Kidney deficiency, overexertion, or frequent pregnancies can deplete Yang. During pregnancy, this can lead to cold sensations, edema, and threatened miscarriage.

Symptoms: Cold limbs, lower back pain, weak knees, frequent urination, fatigue, pale complexion, and swelling in the lower limbs.

Tongue: Pale, swollen with moist or wet coat.

Pulse: Deep, slow, and weak.

Pathology tests: Low progesterone, low thyroid markers (TSH, free T3/T4), low albumin, and low renin.

Comorbidities: Hypothyroidism, edema, recurrent miscarriage, postpartum exhaustion, infertility, IUGR.



Kidney Yang Deficiency

Alchemy Warm Me Up (You Gui Wan)

- * Shu Di
- * Rou Gui
- * Shan Zhu Yu
- * Du Zhong
- * Dang Gui
- * Gou Qi Zi
- * Tu Si Zi
- * Shan Yao
- * +long yan rou
- * + ye jiao teng



Kidney Yang Deficiency

- * KD3: Tonifies Kidney Qi (+moxa).
- * KD7: Tonifies Kidney Yang (+moxa).
- * BL23: Back-Shu point of the Kidneys, tonifies Kidney Yang (+moxa).
- * Ren4: Tonifies Kidney Yang (+moxa).
- * Ren6: Tonifies Qi and Yang.
- * SJ4: Yuan source point of triple heater. (+moxa)
- * DU4: Tonifies Kidney Yang and strengthens the lower back (+moxa).
- * ST36: Strengthens Qi and Yang, supports the Spleen and Stomach.
- * BL52: Tonifies the Kidneys, strengthens the lower back.



Kidney Yang Deficiency

Diet Recommendations:

- * Warming foods: Lamb, chicken, ginger, garlic, onions, and cinnamon to support Yang energy.
- * Kidney-tonifying foods: Walnuts, black beans, and bone broth to strengthen Kidney Yang.
- * Avoid: Cold and raw foods, as well as excessive dairy and sugar, which can weaken Yang.
- * Cooked foods: Warm, hearty meals like stews and casseroles to support digestion and Yang.

Supplements:

- * Ashwagandha: An adaptogenic herb that supports energy levels and balances stress, useful for Yang deficiency.
- * Vitamin D: Supports bone health and Yang energy, especially in cold climates.
- * Deer Velvet: Adaptogenic supplement that supports energy and hormone production.
- * Coenzyme Q10: Supports cellular energy production, particularly for those with fatigue.
- * Tyrosine: Supports adrenal function and metabolic activity. Warming and stimulating.





Qi Stagnation

Etiology: Emotional stress, lack of physical activity, or poor digestion can lead to Qi stagnation. During pregnancy, it manifests as tension, cramping, or mood swings. Later in pregnancy, poor fetal positioning and skin issues can arise.

Symptoms: Emotional instability, irritability, sighing, bloating, cramping or sharp pains, tender breasts, and constipation or sluggish bowels. Itchy skin, PUPPS, cholestasis, breach position. Post partum depression.

Tongue: Normal or slightly purple with thin white coat.

Pulse: Wiry or tense.

Pathology tests: Normal blood tests but with potential raised bilirubin, bile acids, elevated cortisol or catecholamines.

Comorbidities: Anxiety, IBS, premenstrual syndrome (PMS), fibromyalgia, dysmenorrhea, PUPPS, cholestasis, post partum depression, PCOS, endometriosis.



Liver Qi Stagnation

Alchemy Move

(Dang gui shao yao san)

- * Bai Shao
- * Dang Gui
- * Chuang Xiong
- * Bai Zhu
- * Fu Ling
- * Ze Xie



Liver Qi Stagnation

Alchemy Relax

(Xiao Yao San)

- * Chai hu
- * Dang gui
- * Bai shao
- * Bai zhu
- * Fu ling
- * Zhi gan cao
- * Sheng jiang
- * Bo he

- * + ye jiao teng
- * + yuan zhi
- * + long yan rou
- * + bai he



Liver Qi Stagnation

- * LV8: Nourishes liver blood and yin to keep liver flowing freely
- * LV13: Smooths liver qi, harmonise Liver and Spleen
- * BL17: Influences the Liver and helps to move stagnant Qi.
- * PC6: Regulates the Heart and calms the mind, helping with emotional symptoms. Regulates flow of qi through middle jiao.
- * St36: Tonifies Qi, and indirectly supports Liver Qi.
- * Ren17: Tonifies Qi and regulates flow of Qi in the chest and upper jiao.



Liver Qi Stagnation

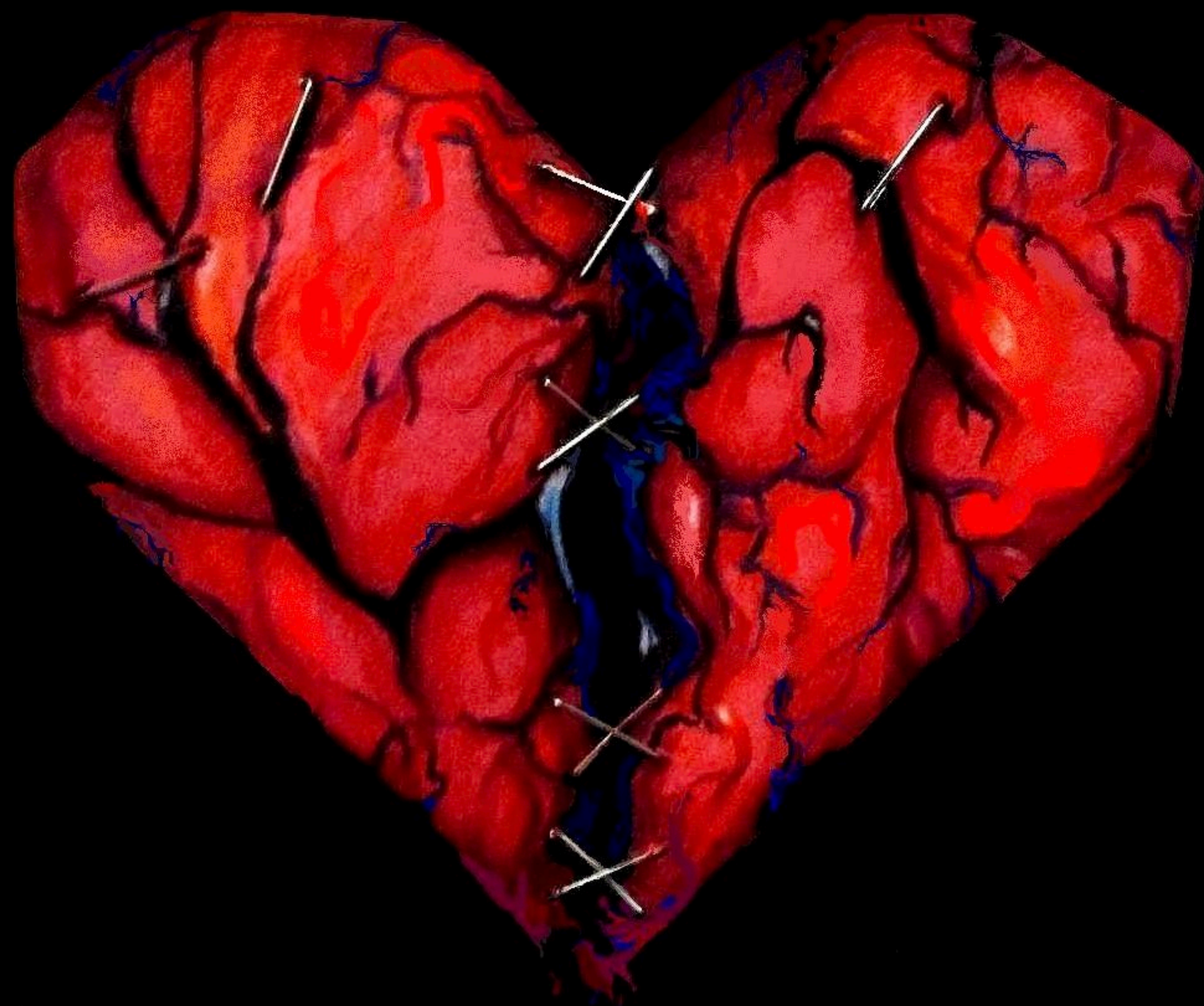
Diet Recommendations:

- * Foods that move Qi: Citrus fruits (like lemons and oranges), onions, garlic, ginger, and turmeric. Mint tea.
- * Green leafy vegetables: Spinach, kale, and broccoli to support Liver function.
- * Whole grains: Brown rice, oats, and quinoa to provide sustained energy and prevent stagnation.
- * Avoid: Alcohol, caffeine, and fatty, greasy foods, which can exacerbate Liver stagnation.

Supplements:

- * Zizyphys: keeps nervous system balanced, nourishes liver yin and blood.
- * Turmeric or Curcumin: Has anti-inflammatory properties and supports Liver health
- * Lemon Balm: Calming for nervous system, good for alleviating the effects of stress
- * Magnesium: Helps relax muscles and alleviate tension





Blood Stagnation

Etiology: Previous trauma, surgical scars, Qi stagnation, or poor circulation can lead to Blood stagnation. In pregnancy, this can cause sharp pain, spotting, or risk of miscarriage.

Symptoms: Sharp, stabbing abdominal pain, dark-colored spotting, clots in discharge, poor fetal growth, or abnormal fetal positioning.

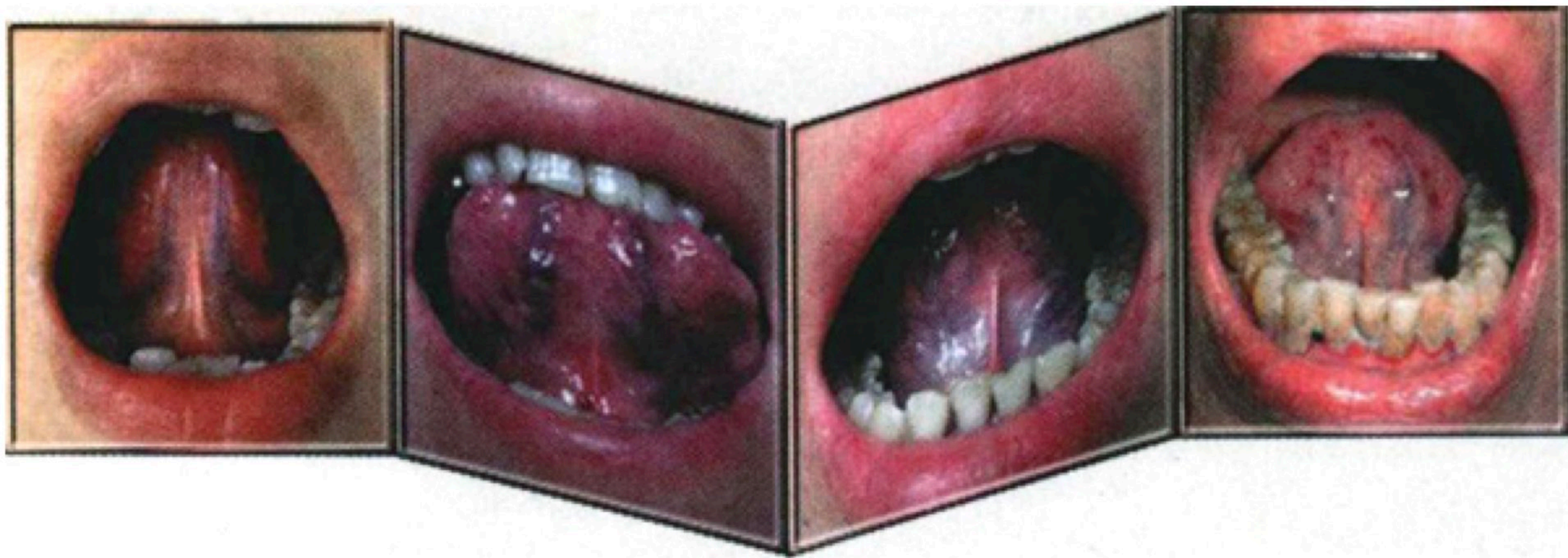
Tongue: Purple or with purple spots, dark sublingual veins.

Pulse: Choppy or wiry.

Pathology tests: Elevated D-dimer, abnormal Doppler studies, high platelet count, signs of clotting issues (e.g., lupus anticoagulant).

Comorbidities: Endometriosis, fibroids, PCOS, thrombophilia, recurrent miscarriage.





Blood Stasis

Alchemy Nikki

- * Tao Ren
- * Hong Hua
- * Yi Mu Cao
- * Dan Shen
- * Huang Qi
- * Han Lian Cao
- * Huang Qin
- * Huang Bai
- * Bai Shao
- * Shan Zhu Yu
- * Shu Di
- * Mu Dan Pi
- * Nu Zhen Zi

Blood Stasis

Alchemy Move

(Dang gui shao yao san)

- * Bai Shao
- * Dang Gui
- * Chuang Xiong
- * Bai Zhu
- * Fu Ling
- * Ze Xie



Blood Stasis

- * BL17: Influential point of Blood, helps move and invigorate Blood.
- * BL18: Regulates the Liver, and supports movement of stagnant Blood.
- * LV3: Moves Liver Qi and Blood.
- * KD14: Regulates the Chong and Ren Mai, moves Blood stasis, and alleviates pain.
- * KD9: Xi cleft point of Yin Wei mai. “Beautiful baby point”.
- * Ren17: Tonify qi, invigorate qi in the chest.
- * PC6: Move qi in the middle jiao.
- * Ht7: Calm shen.



Damp-Heat

Etiology: Poor diet (e.g., greasy or spicy foods), exposure to hot or humid environments, or pre-existing dampness can lead to Damp-Heat. During pregnancy, it can manifest as itching, rashes, or gestational diabetes.

Symptoms: Heavy sensation in the body, yellow or greasy vaginal discharge, itching (e.g., PUPPS), loose stools, foul-smelling stools, and skin rashes.

Tongue: Red with yellow, greasy coating.

Pulse: Slippery and rapid.

Pathology tests: Elevated fasting glucose, elevated liver enzymes (AST, ALT), high bile acids, elevated triglycerides.

Comorbidities: Gestational diabetes, cholestasis, eczema, PUPPS, yeast infections.



Damp-Heat

San Ren Tang

- | | |
|---------------|----------------------------------|
| * Xing ren | * Hua shi* |
| * Bai dou kou | |
| * Yi yi ren | * +huang qin (liver/blood sugar) |
| * Hou po | * +xia ku cao (high BP) |
| * Zhi ban xia | * +sang ji sheng (high BP) |
| * Dan zhu ye | * + jin yin hua (toxic heat) |
| * Tong cao | * +bai Xian pi (itching) |



Damp-Heat

- * ST40: Resolves Phlegm and Dampness.
- * SP9: Resolves Dampness and supports the Spleen.
- * Ren12: Harmonizes the Stomach, resolves Dampness and Phlegm.
- * BL20: Strengthens the Spleen and resolves Dampness.
- * St36: Support spleen to resolve dampness
- * LV2: Clear heat from liver channel
- * KD2: Clear empty heat from Kd channel
- * Bai chong wo: itching
- * Ht8+Ht3: Itching skin



Damp-Heat

Diet Recommendations:

- * Dampness-draining foods: Barley, adzuki beans, mung beans, and corn silk to help remove excess Dampness.
- * Bitter and pungent foods: Dandelion greens, bitter melon, and radishes to help clear Dampness. Green leafy vegetables, cucumbers, and bitter melon to clear heat
- * For Liver Health: Lemon, dandelion greens, and small amounts of olive oil.
- * Avoid: Dairy, greasy foods, sugar, and cold/raw foods, which can increase Phlegm and Dampness. Sugary or processed foods that contribute to Damp accumulation.
- * Light, easily digestible meals: Prefer soups, steamed vegetables, and light proteins.

Supplements:

- * Turmeric: Helps reduce inflammation and clear Dampness.
- * Digestive enzymes: Support digestion and reduce Phlegm formation.
- * Probiotics: Help balance gut flora, which can be helpful in clearing Dampness and Phlegm.
- * Berberine: Regulates blood sugar, regulates microbial overgrowth
- * Chromium: regulates blood sugar
- * Choline: supports liver function and bile flow
- * Magnesium: regulates blood sugar.

Spleen Qi Deficiency with Dampness

Etiology: Poor diet, overwork, or chronic illness can weaken Spleen Qi and lead to Damp accumulation. During pregnancy, this results in nausea, bloating, or gestational diabetes.

Symptoms: Nausea, vomiting, loose stools, fatigue, bloating, heavy sensation, and swelling.

Tongue: Pale, swollen with a greasy white coat.

Pulse: Slippery or soft.

Pathology tests: Elevated fasting glucose, abnormal glucose tolerance test (OGTT), elevated triglycerides.

Comorbidities: Gestational diabetes, edema, pre-eclampsia, IBS.



Spleen Qi Deficiency with Dampness

Liu Jun Zi Tang

- * Ren shen
- * Fu ling
- * Bai zhu
- * Gan cao
- * Ban xia
- * Chen pi

- * Sha ren
- * Mu Xiang



Spleen Qi Deficiency with Dampness

- * ST40: Resolves Phlegm and Dampness.
- * SP9: Resolves Dampness and supports the Spleen.
- * Ren12: Harmonizes the Stomach, resolves Dampness and Phlegm.
- * BL20: Strengthens the Spleen and resolves Dampness.
- * ST36: Support spleen to resolve dampness
- * SP3: Tonify spleen and clear damp.
- * ST8: clear dampness from the mind and head



Heart and Shen Disturbance

Etiology: Emotional stress, trauma, or insomnia can disturb the Heart and Shen. During pregnancy, this results in anxiety, insomnia, or palpitations.

Symptoms: Anxiety, restlessness, vivid dreams, palpitations, difficulty falling asleep, and brain fog.

Tongue: Red tip with thin white or yellow coat.

Pulse: Thin and rapid.

Pathology tests: Elevated cortisol, signs of stress (e.g., low HRV).

Comorbidities: Anxiety, insomnia, postpartum depression, panic attacks



Medicines for Shen

- * Gui pi tang (Alchemy Nourish)
- * Tian wang bu xin dan (Alchemy Chill Out)
- * Suan zao ren tang
- * Metagenics Neurocalm: suan zao ren, ge gen, hou po, passionflower
- * An shen ding zhi wan
- * Ye jiao teng/Bai he/Long Yan Rou
- * Lemon Balm: Calming for nervous system, good for alleviating the effects of stress
- * Magnesium: Helps relax muscles and alleviate tension
- * DLPA - D,L phenylalanine
- * 5-HTP
- * GABA

Application to Conditions

- **Fatigue**: Often Qi or Blood deficiency.
- **Miscarriage Risk**: Kidney deficiency, Qi deficiency, or Blood stagnation.
- **Gestational Diabetes**: Spleen Qi deficiency with Damp-Heat.
- **Anxiety/Depression**: Liver Qi stagnation, Heart and Shen disturbance, or Yin deficiency.
- **Constipation**: Qi deficiency, Blood deficiency, or intestinal dryness.
- **Pelvic Pain**: Qi stagnation or Kidney deficiency.
- **Cholestasis/PUPPS**: Damp-Heat or Liver Fire.



A pregnant woman with dark skin and long braids is sitting on a white bed. She is wearing a light-colored cardigan over a peach-colored tank top and grey leggings. She is holding a clear glass bowl filled with a colorful salad of lettuce, tomatoes, and other vegetables. She is using a silver fork to eat from the bowl. The background is a bright, out-of-focus window with white curtains.

Research Findings on Nutrition During Pregnancy

Evidence-Based Recommendations

1. **Balanced Diet:**

- **A diet rich in whole grains, lean proteins, fruits, vegetables, and healthy fats is essential for optimal maternal and fetal health (Williamson, 2006).**
- **Pregnant women should aim for 2,200–2,900 kcal/day depending on pre-pregnancy BMI, physical activity, and trimester (Kaiser & Campbell, 2014).**



Evidence-Based Recommendations

2. Key Micronutrients:

- **Folic Acid**: Daily supplementation of 400 µg is critical before conception and during the first trimester to prevent neural tube defects (Ramakrishnan et al., 2012).
- **Iron**: Many women require supplementation to prevent anemia due to the increased demand for red blood cells (Konyshko et al., 2023).
- **Vitamin D**: Supplementation of 10 µg/day is recommended to support fetal bone development and immune function (Williamson, 2006).
- **Iodine**: Essential for thyroid function, supplementation is recommended in areas with iodine-deficient soils (Moran-Lev et al., 2019).



Evidence-Based Recommendations

3. Macronutrients:

- **Protein**: Increased intake supports fetal growth, particularly during the second and third trimesters (Williamson, 2006).
- **Essential Fatty Acids**: Omega-3 fatty acids are critical for fetal brain and retina development. Pregnant women should consume at least one portion of oily fish per week (Koletzko et al., 2019).



Evidence-Based Recommendations

4. Weight Management:

- **Appropriate gestational weight gain reduces risks of low birth weight, preterm delivery, and gestational diabetes. Weight gain guidelines depend on pre-pregnancy BMI (Aoyama et al., 2022).**



Risks Associated with Poor Nutrition

1. Maternal Risks:

- **Anemia**: Due to insufficient iron intake.
- **Gestational Diabetes**: Linked to excess sugar and poor dietary balance (Williamson, 2006).
- **Pre-eclampsia**: Linked to obesity and inadequate calcium or protein intake.



Risks Associated with Poor Nutrition

2. Fetal Risks:

- **Low Birth Weight**: Associated with inadequate caloric and protein intake (Ramakrishnan et al., 2012).
- **Neural Tube Defects**: Due to insufficient folate (Kaiser & Allen, 2002), or problematic methylation.
- **Developmental Delays**: Related to deficiencies in iodine, iron, or DHA (Koletzko et al., 2019).



Practical Considerations

- **Food Safety**: Avoid raw fish, unpasteurized dairy, and undercooked meats to reduce risk of listeriosis and toxoplasmosis (Konyshko et al., 2023).
- **Hydration**: Ensure adequate fluid intake to support amniotic fluid production and kidney function (Seymour et al., 2019).
- **Supplements**: Tailored to individual needs, especially for at-risk populations such as vegans or adolescents (Lenders et al., 2000).





Safety of Supplements During Pregnancy

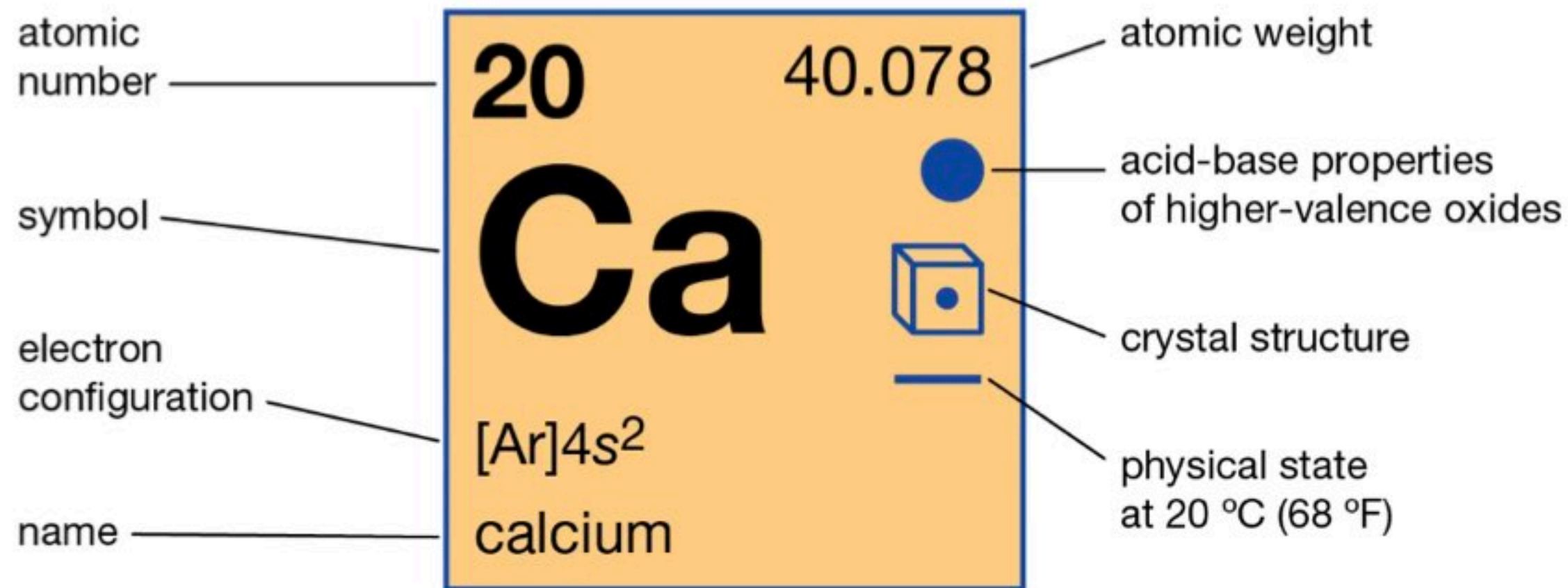
Functional Medicines

- * Folate
- * B complex
- * Magnesium
- * Fish oil
- * Vitamin D
- * Calcium
- * Zinc
- * Iodine
- * Iron
- * Multi mineral
- * Multi vitamin + mineral
- * Probiotics
 - * Lactobacillus rhamnosus (HN001)
 - * Lactobacillus reuteri
 - * Lactobacillus salivarius (UCC118)
 - * Bifidobacterium animalis (subsp. lactis)



Calcium

Calcium



 Alkaline-earth metals	 Solid
 Face-centred cubic	 Strongly basic

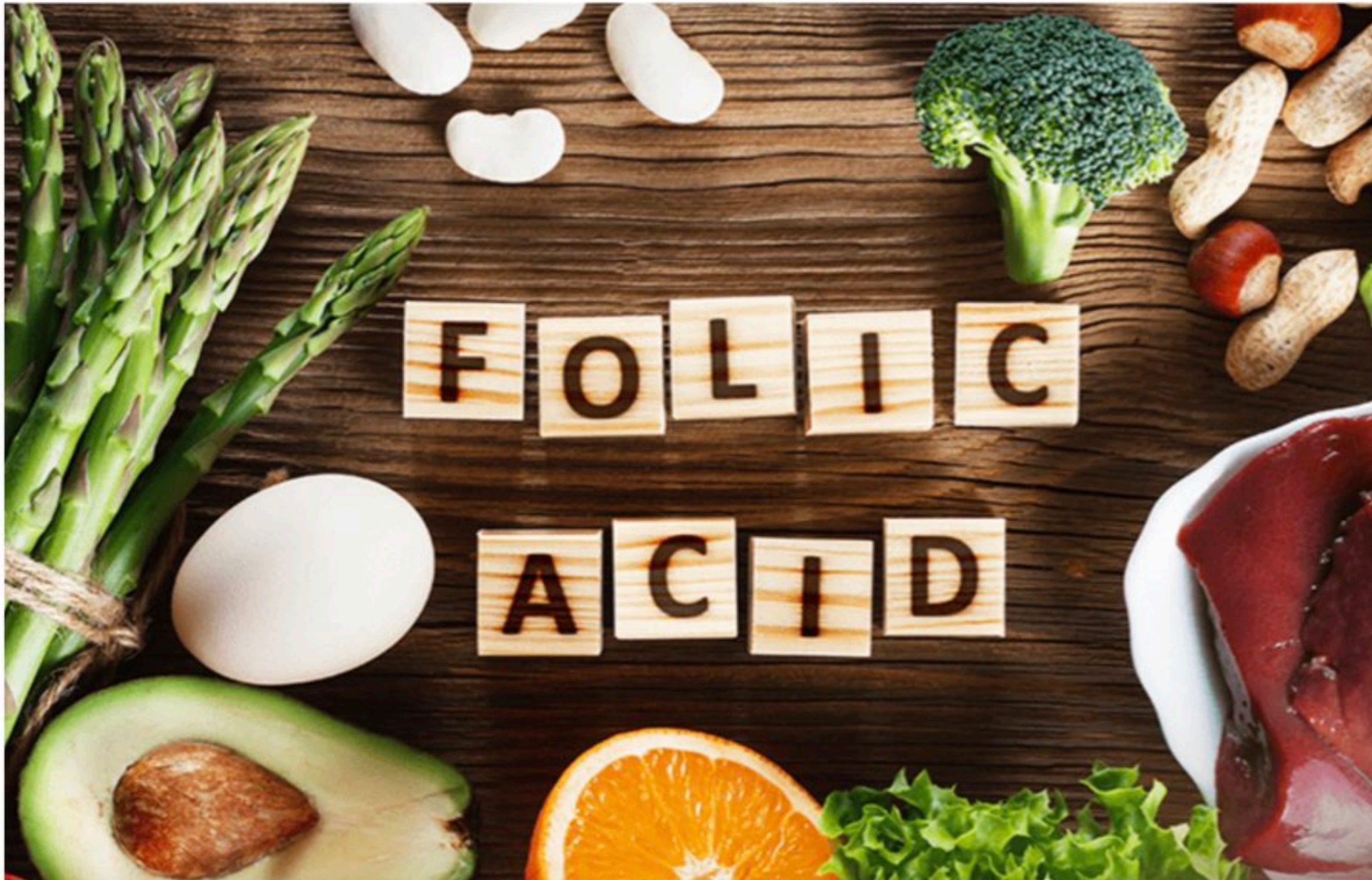
* Findings:

- Calcium supplementation (≥ 1 g/day) is associated with a significant reduction in the risk of pre-eclampsia, particularly in women with low dietary calcium intake or those at high risk (Hofmeyr et al., 2014).
- Meta-analyses show a 44% reduction in pre-eclampsia risk and a 20% reduction in gestational hypertension with calcium supplementation (Jaiswal et al., 2023).

* **Recommendations:** The WHO recommends 1.5–2 g/day of calcium for pregnant women with low dietary calcium intake.



Folic Acid



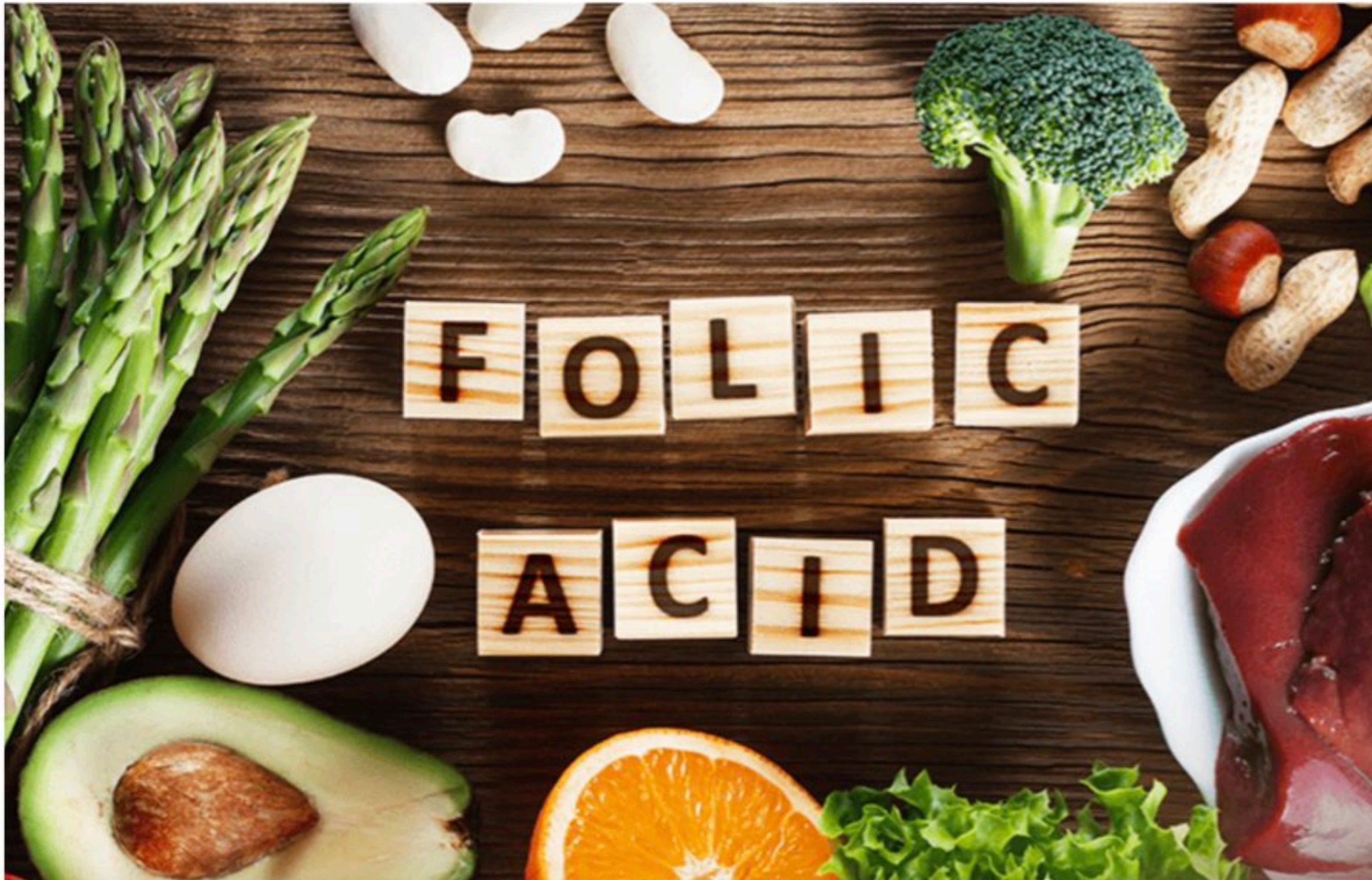
* **Findings:**

- Folic acid supplementation (400 µg/day) reduces the risk of neural tube defects and improves pregnancy outcomes (Wen et al., 2018).
- High doses (4 mg/day) may reduce the risk of severe pre-eclampsia in high-risk pregnancies (Zheng et al., 2020).

* **Recommendations:** Routine supplementation with 400–800 µg/day, with higher doses for women at high risk of NTD.



Folic Acid



- * **Findings:**
 - Folic acid supplementation (400 µg/day) improves iron absorption and improves pregnancy outcomes (Bumrungpert et al 2022).
 - Can help reduce the risk of miscarriage (Qin et al 2023).
- * **Recommendations:** Routine supplementation with 400–800 µg/day, especially suited for patients with blood deficiency or anemia.

Vitamin D



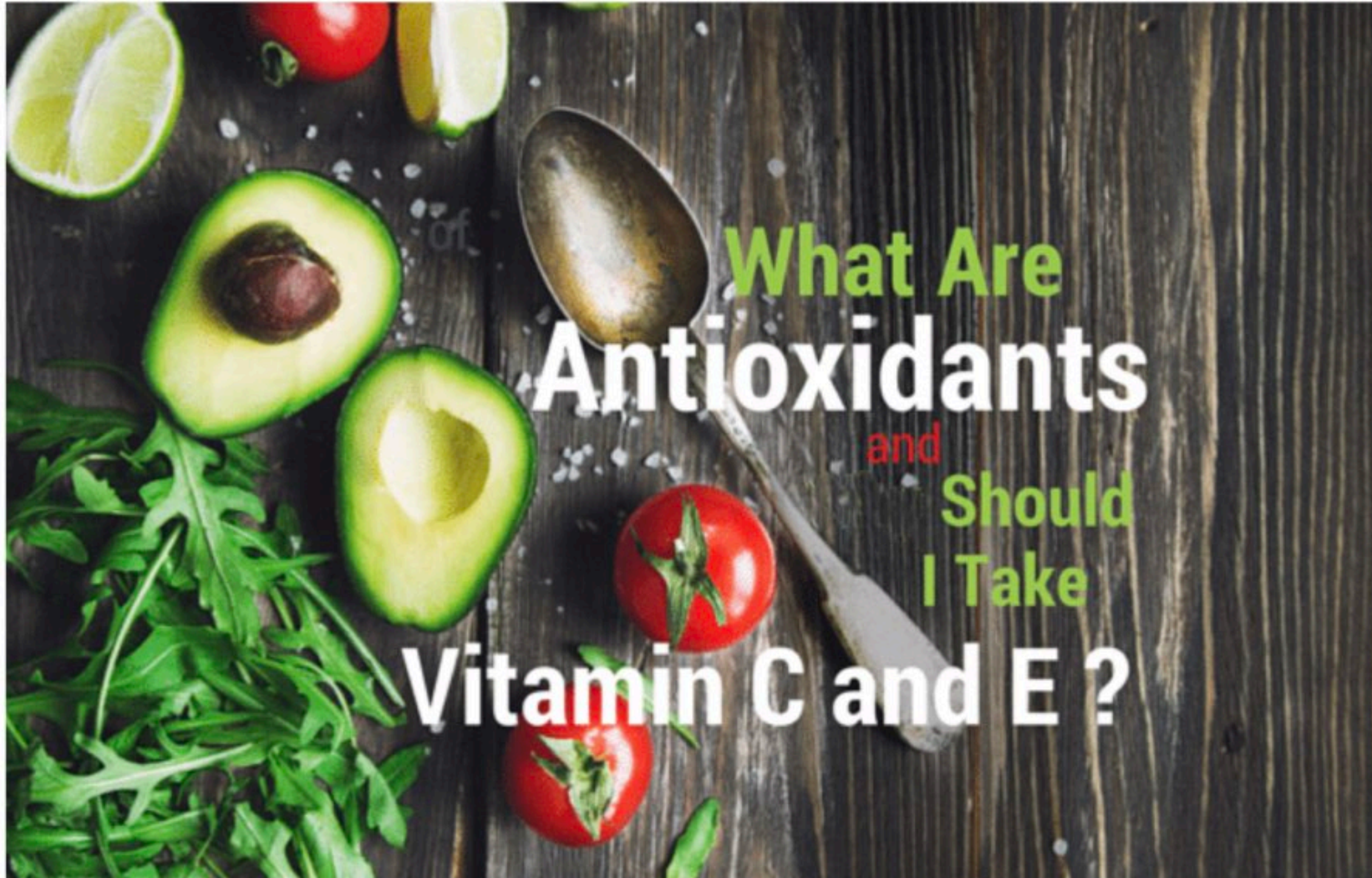
* **Findings:**

- Vitamin D supplementation reduces the incidence of pre-eclampsia and IUGR, particularly in vitamin D-deficient populations (Ali et al., 2019).
- Higher doses (e.g., 4000 IU/day) are more effective than lower doses (e.g., 400 IU/day) (Hollis et al, 2011).
- <https://www.youtube.com/watch?v=O0elnh4D08g>

- ## * **Recommendations:**
- 4000IU daily for all pregnant women. 6000IU for breastfeeding.



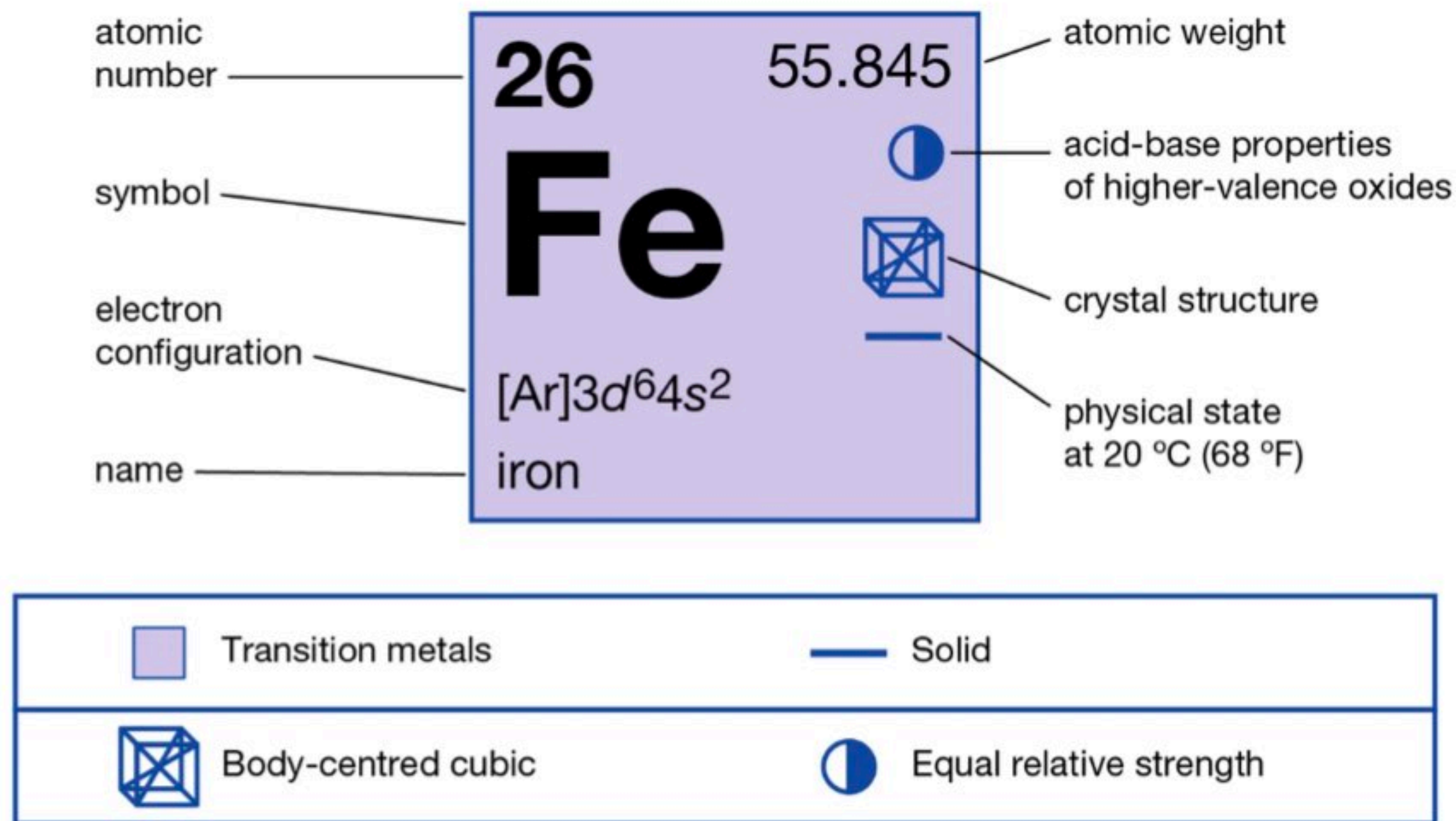
Antioxidants (Vitamins C and E)



- * **Findings:**
 - Studies show inconsistent effects of vitamin C and E supplementation on pre-eclampsia. Some trials indicate no benefit, and others report potential harm, such as increased low birthweight rates (Poston et al., 2006).
- * **Recommendations:** Routine antioxidant supplementation is not recommended for pre-eclampsia prevention.

Iron

Iron



- * **Findings:**
 - Iron supplementation reduces maternal anemia and improves neonatal iron stores, potentially supporting fetal growth and reducing the risk of low birth weight (Hovdenak & Haram, 2012).
- * **Recommendations:** Universal supplementation (30–60 mg/day) for all pregnant women, with adjustments based on individual needs.



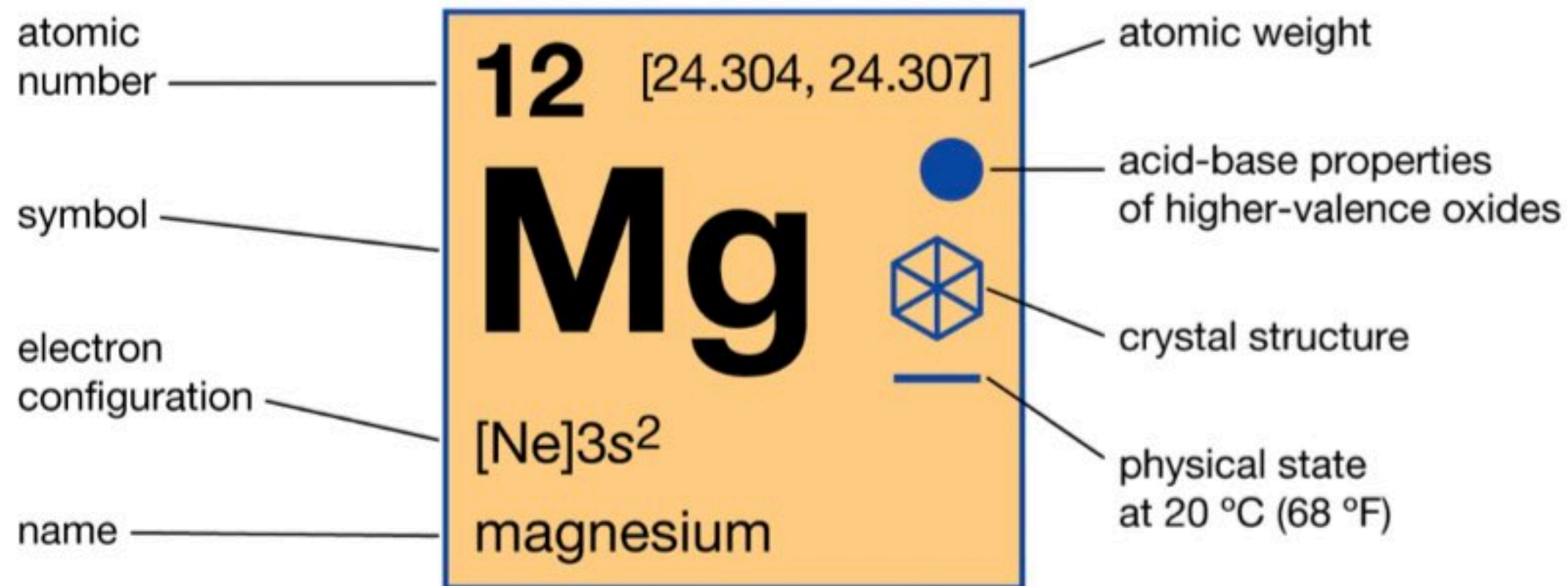
Omega-3 Fatty Acids



- * **Findings:**
 - Omega-3 fatty acids (DHA and EPA) may reduce the risk of preterm birth and support fetal brain development.
- * **Recommendations:** Include at least 200 mg/day of DHA from dietary or supplemental sources.

Magnesium

Magnesium



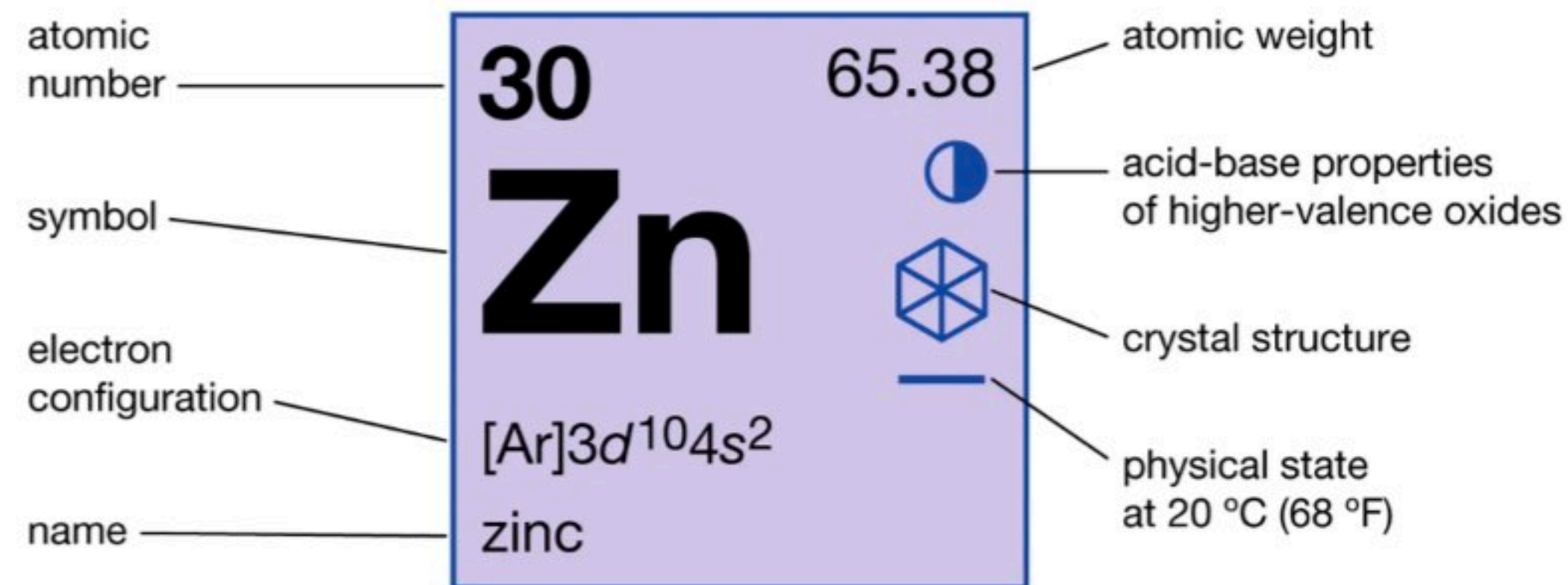
- * **Findings:**
 - Magnesium supplementation has been shown to reduce the risk of low birth weight and preterm delivery (Hovdenak & Haram, 2012).
- * **Recommendations:** Supplementation in magnesium-deficient populations may be beneficial.

	Alkaline-earth metals		Solid
	Hexagonal		Strongly basic



Zinc and Selenium

Zinc



Transition metals	Solid
Hexagonal	Equal relative strength

* Findings:

- Zinc deficiency has been linked to poor fetal growth, but routine supplementation has limited evidence of benefit.
- Selenium may support immune function and reduce the risk of pre-eclampsia, but further research is needed (Hovdenak & Haram, 2012).

* Recommendations: Targeted supplementation for women with deficiencies.



Probiotics

Specific Pregnancy Outcomes Linked to Probiotics

* **Gestational Diabetes:**

- * Probiotics, particularly *Lactobacillus rhamnosus* and *Bifidobacterium* strains, show promise in reducing insulin resistance and fasting plasma glucose levels (Taylor et al., 2017).
- * Mixed results on their ability to prevent GDM entirely, but beneficial metabolic effects are noted.

* **Allergic Diseases:**

- * Probiotics, especially *Lactobacillus rhamnosus* HN001, reduce the risk of atopy and eczema in infants (Barthow et al., 2016).

* **Pre-eclampsia:**

- * Limited evidence, but some strains may lower inflammation, which is implicated in pre-eclampsia.

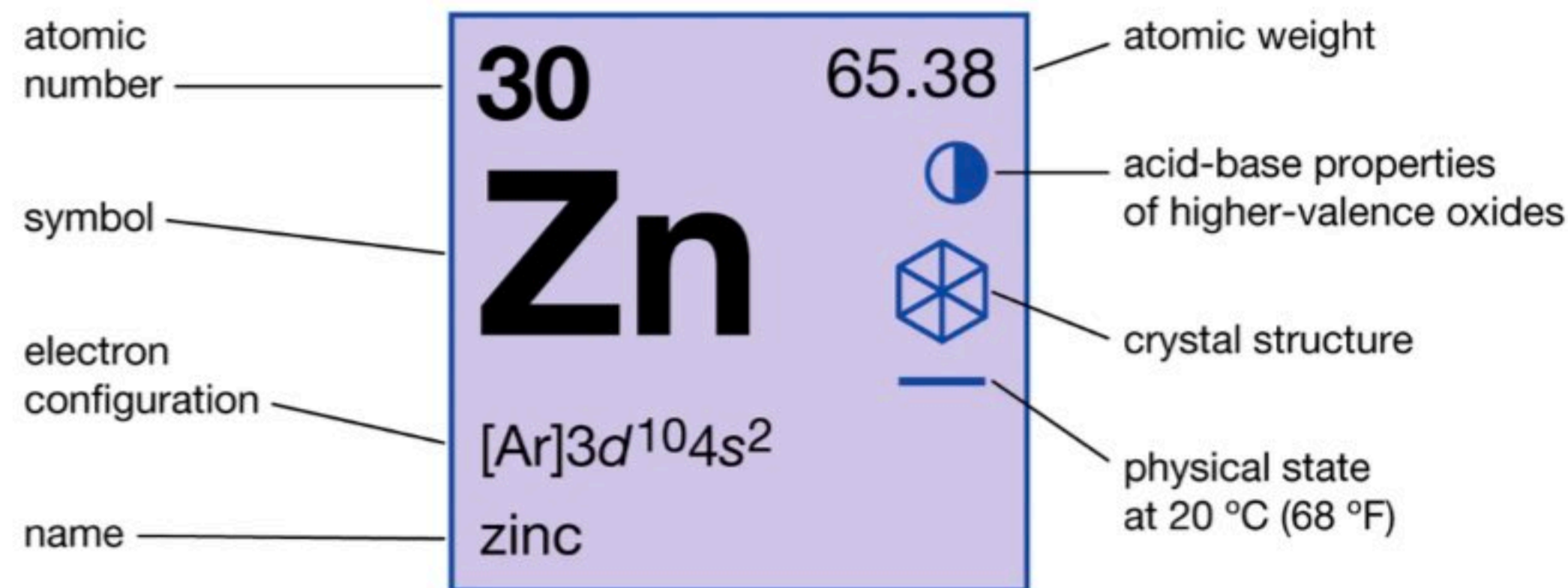
* **Cholestasis:**

- * No direct evidence yet, but probiotics reducing systemic inflammation and improving gut microbiota may have indirect benefits.



Iodine

Zinc



 Transition metals	 Solid
 Hexagonal	 Equal relative strength

* Findings:

- Fetal Brain Development: Thyroid hormones, dependent on iodine, are essential for fetal neural development, particularly in the first trimester when the fetus is entirely reliant on maternal thyroid hormones.
- Thyroid Function: Iodine supports maternal thyroid hormone production, which increases by 50% during pregnancy to meet fetal and maternal demands.
- Growth and Metabolism: Ensures proper growth and metabolic regulation in both the mother and fetus.
- Adequate iodine reduces the risk of cognitive and motor delays in children (Velasco et al., 2018).

* Recommendations: 250ug daily during pregnancy



Thyroid: Pregnancy

Research shows us

- Pre-eclampsia
- Small for gestational age - TgAb [36923219]
- Preterm birth (pre 37 weeks)
- Premature rupture of membranes (PROM)
- Anemia
- Polyhydramnios - antibodies
- Placental abruption - antibodies. Double risk if TPOAb+ AND TgAb+
- Placenta previa - antibodies
- Gestational diabetes - antibodies [36923219]
- Gestational Hypertension - antibodies [36923219]
- Neonatal NICU admission - TgAb [36923219]
- Pregnancy loss
- Post partum haemorrhage
- Lower IQ offspring
- Learning difficulties [PMC4684651]
- Glucose and lipid metabolism disorder > Premature delivery, PROM, intellectual development and psychomotor development of infants [PMC8995499]

Current RANZCOG guidelines

Some of the recommendations are based on **lack of evidence of harm, rather than evidence of lack of harm**

Recommendation 1	Grade
Women who are pregnant, planning a pregnancy or breast feeding should take an iodine supplement of 150 micrograms (µg) each day.	Consensus-based recommendation ¹
Recommendation 2	Grade
Targeted testing for overt hypothyroidism is recommended in pregnancy. Women with a personal history of thyroid disease, Type 1 diabetes or symptoms of thyroid disease should be tested with TSH and FT4	Consensus-based recommendation
Recommendation 3	Grade
Overt hypothyroidism should be treated in pregnancy. Overt hypothyroidism is defined as a TSH above the reference range with a decreased T ₄ , OR TSH >10 mIU/L, irrespective of the level of FT4.	Consensus-based recommendation
Recommendation 4	Grade
Screening for subclinical hypothyroidism or TPO antibodies, and subsequent treatment with thyroxine is not recommended prior to pregnancy or in pregnancy	Evidence based recommendation
	Grade A
Recommendation 5	Grade
Treatment of TPO antibodies in euthyroid women does not reduce miscarriage, and so is not recommended.	Evidence based recommendation
	Grade A

Current RANZCOG guidelines

4.2.1 Pregnancy outcomes with SCH

There have been numerous retrospective studies reporting associations between SCH and adverse pregnancy outcomes, however, the data is inconsistent, with many studies failing to demonstrate an adverse effect from untreated SCH. Results from large cohorts and meta-analyses have also not been consistent in demonstrating an association between SCH and adverse pregnancy outcomes⁸⁻¹¹.

High quality prospective randomized controlled trials involving over one hundred thousand women have not demonstrated any maternal or neonatal benefits from treatment of SCH with thyroxine^{12,13}.

4.2.2 Neurological outcome and SCH

The documented association between overt hypothyroidism and childhood developmental delay has not been confirmed in prospective cohort data of women with SCH¹⁴⁻¹⁵. The two high quality randomised controlled intervention studies, described above, did not show improved cognitive function in children at 3 or 5 years of age after antenatal screening and maternal treatment for subclinical hypothyroidism¹²⁻¹³. Criticism has been raised of the validity of these trials because thyroxine treatment was not commenced until early second trimester.

Some of the
recommendations are
based on
**lack of evidence of harm,
rather than
evidence of lack of harm**

Current RANZCOG guidelines

4.5 Miscarriage

An association exists between maternal thyroid autoantibodies and SCH, and miscarriage²². This association may be because all three of these conditions are more common as women become older. Early trials of intervention to prevent miscarriage in women with SCH or TPO antibodies have generally been of low methodological quality and have had heterogeneous results¹⁸⁻²⁰. Newer high quality RCT evidence has not demonstrated benefit from treating euthyroid TPO positive women with thyroxine to prevent miscarriage and so this treatment is not recommended²³. Evidence is mixed on the benefits of treating SCH to reduce miscarriage and further trials are awaited.

4.4 Thyroid autoantibodies

Thyroid auto antibodies, to thyroid peroxidase or thyroglobulin are present in up to 20% of reproductive age women. Two small non-placebo controlled trials in euthyroid, TPO Ab-positive women appeared to show a benefit for reduction of preterm birth with thyroxine treatment, however this benefit has not been confirmed in other studies¹⁸⁻²¹. There is no substantive evidence to support alteration in TSH targets or benefits from thyroxine treatment based on TPO antibody status and so universal or targeted screening for thyroid autoantibodies is not recommended in pregnancy.

“It could just be because they’re older”

These recommendations are based on inconsistent evidence of benefit, where there is an elevated risk

Thyroid: Pregnancy Complications

Research shows us

- TgAbs are associated with an increased risk of premature rupture of fetal membranes and low birth weight [25209893]
- TgAb can interfere with the thyroidal response to human chorionic gonadotropin (hCG) stimulation similar to TPOAb
- Significant doubling in the odds of preterm birth with the presence of thyroid autoantibodies (2.07, 1.17 to 3.68; P=0.01) [PMC3089879]
- One study reported on the effect of levothyroxine on the rate of preterm birth, and noted a 69% relative risk reduction (0.31, 0.11 to 0.90). However more recent studies have not shown the benefit in decreasing preterm birth [PMC9874701]
- risk of preterm birth and very preterm birth was 4.9% and 0.7% in TPOAb- compared to 6.6% and 1.7% for TPOAb+ [PMC6704759]
- Regardless of TPOAb status or iodine insufficiency, risk of preterm labor is increased in pregnant women with TSH value of > 3.92 mIU/L [PMC10058148]
- Iodine supplementation prior to conception may reduce incidence of pre-eclampsia [PMC7418397]



Thyroid: Post Partum

Research shows us

- selenium supplementation as a preventive strategy for post-partum thyroid dysfunction: PPTD and permanent hypothyroidism were significantly lower in treatment group (28.6 vs. 48.6%, $P < 0.01$; and 11.7 vs. 20.3%, $P < 0.01$) [PMID: 17284630]
- 40% of patients with SCH during pregnancy showed a persistent hypothyroidism after delivery during a median follow-up of 11 months [32375594]
 - antibody positivity during pregnancy and persistency at 6 weeks after delivery as the significant risk factors for long-term hypothyroidism
- almost one-third of women with normal thyroid function 6-week post-partum were found to have hypothyroidism during the follow-up
- TPO antibodies positive, vitamin D deficient in 1st trimester - more likely to develop post partum thyroiditis [PMC9589503]
- low-normal free T4 was associated with an increased risk of future major depression [PMC10387582]

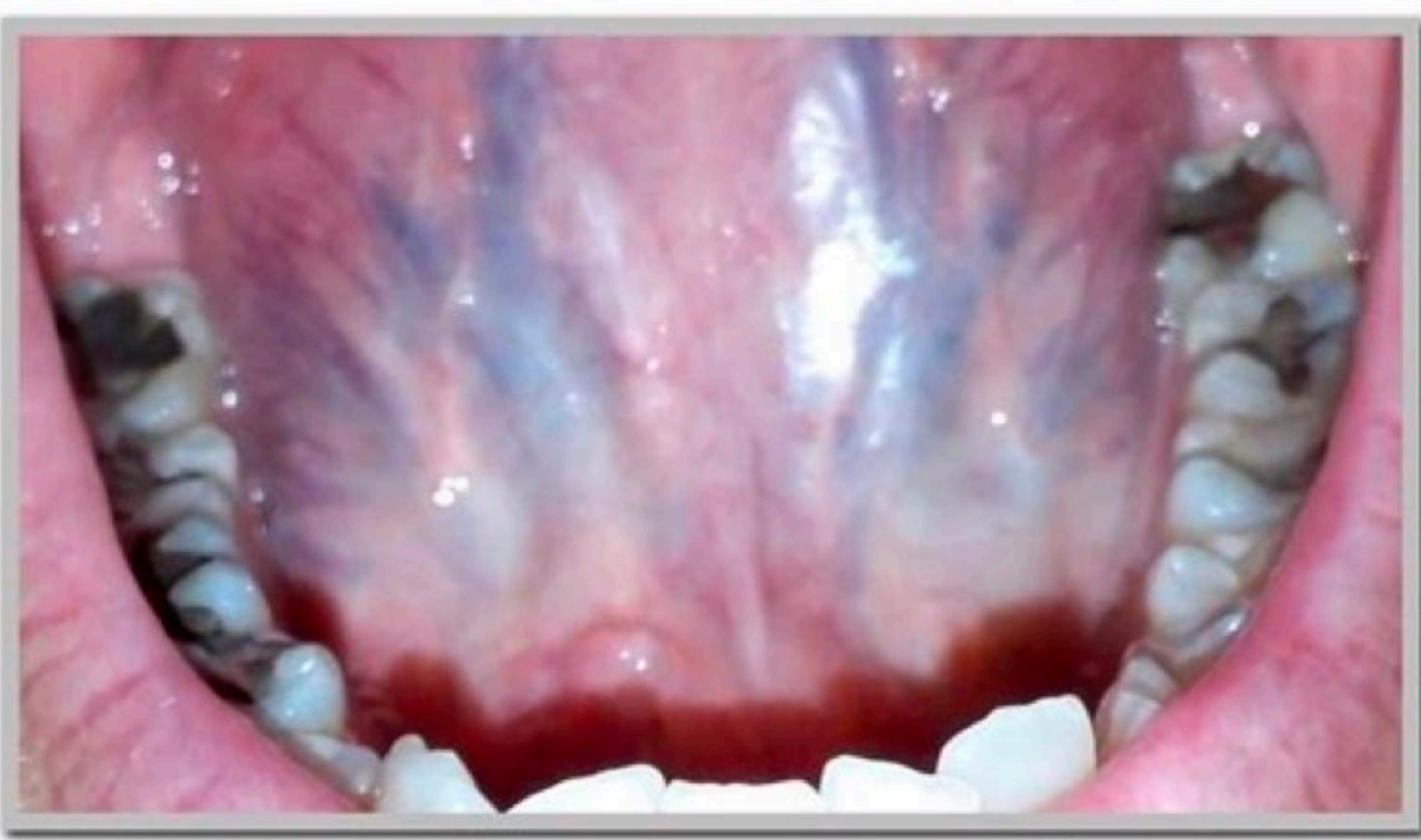
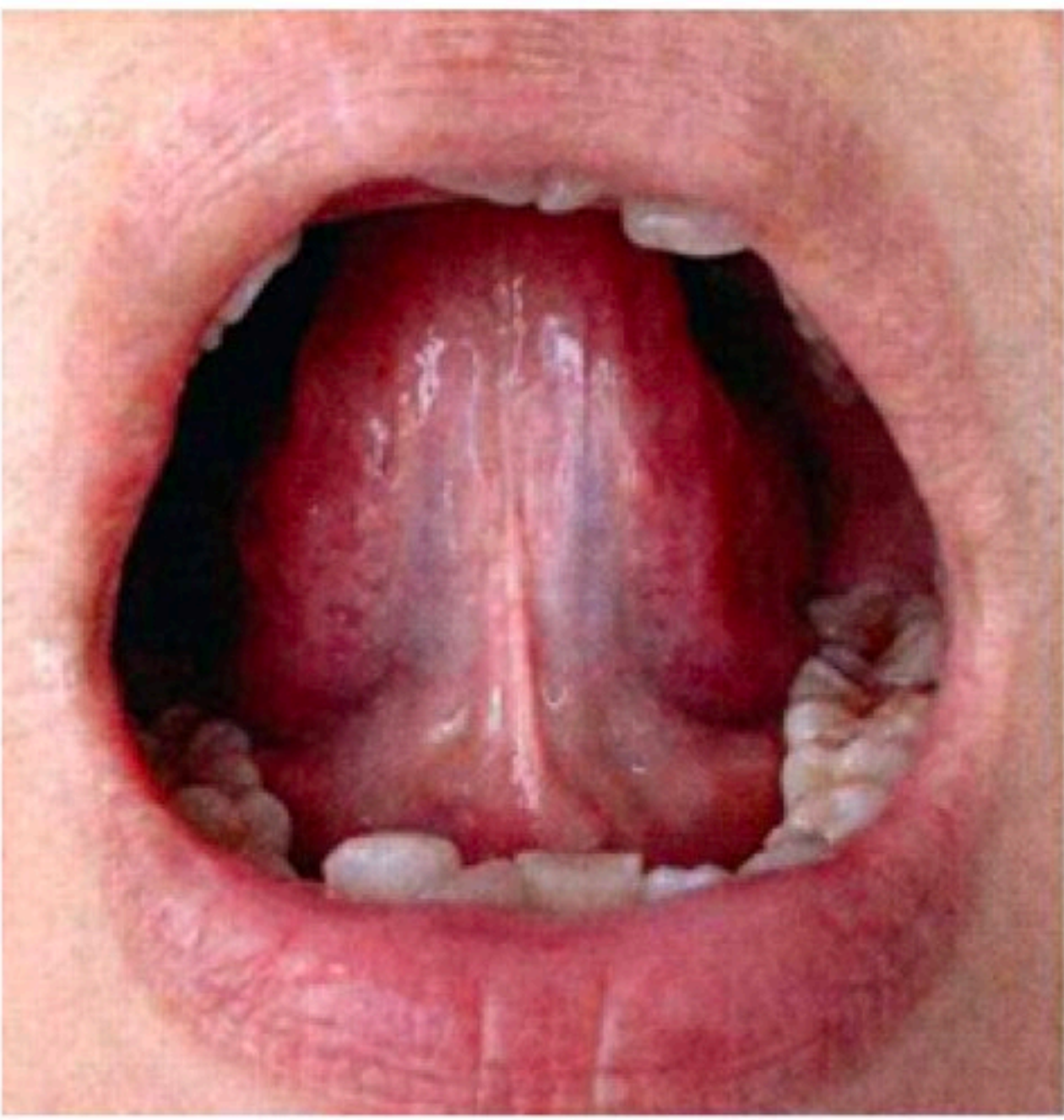
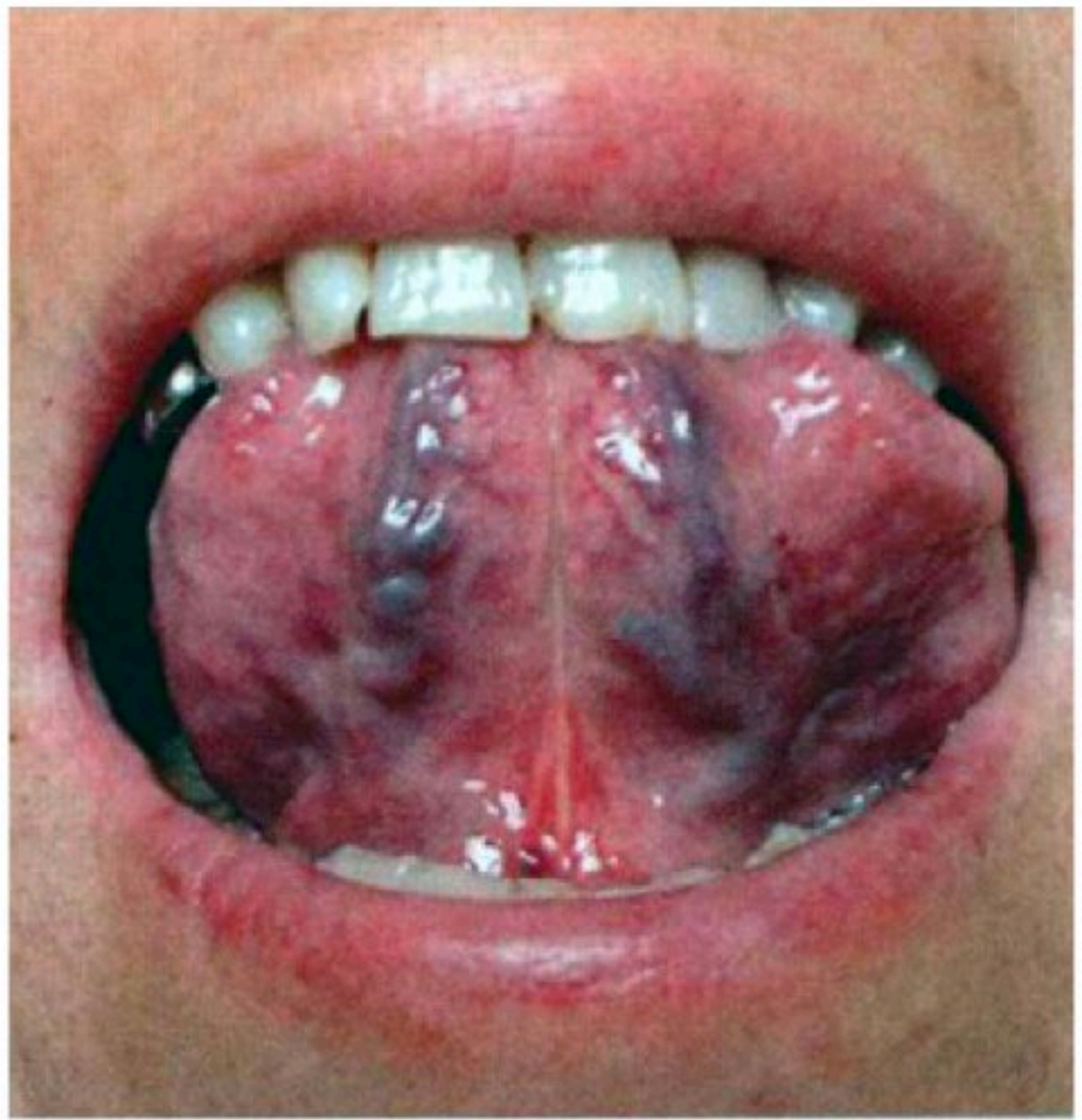


Amnesia Rage
Tumours Insomnia
Choppy
Purple
Numbness
Bleeding Anxiety
Depression
Varicosities
Veins
Palpitations
Pain
Purpura Sublingual

What does Blood Stasis Look Like?

Trigger Warning: Graphic Content



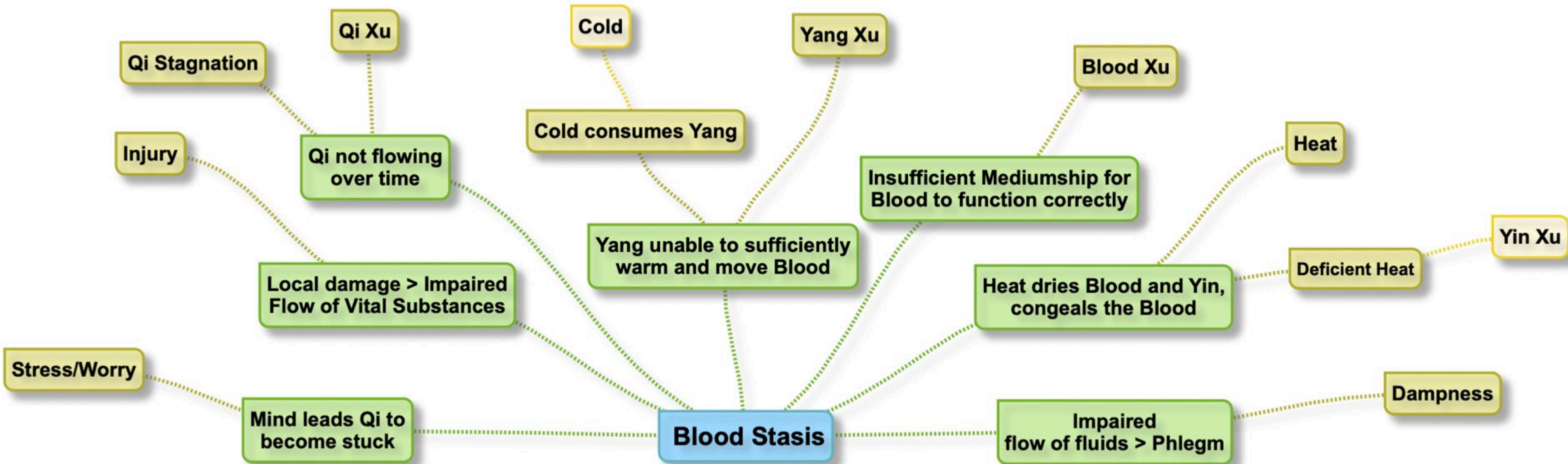




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Blood Stasis Doesn't Occur on its Own

Aetiology of Blood Stasis



Red Herrings

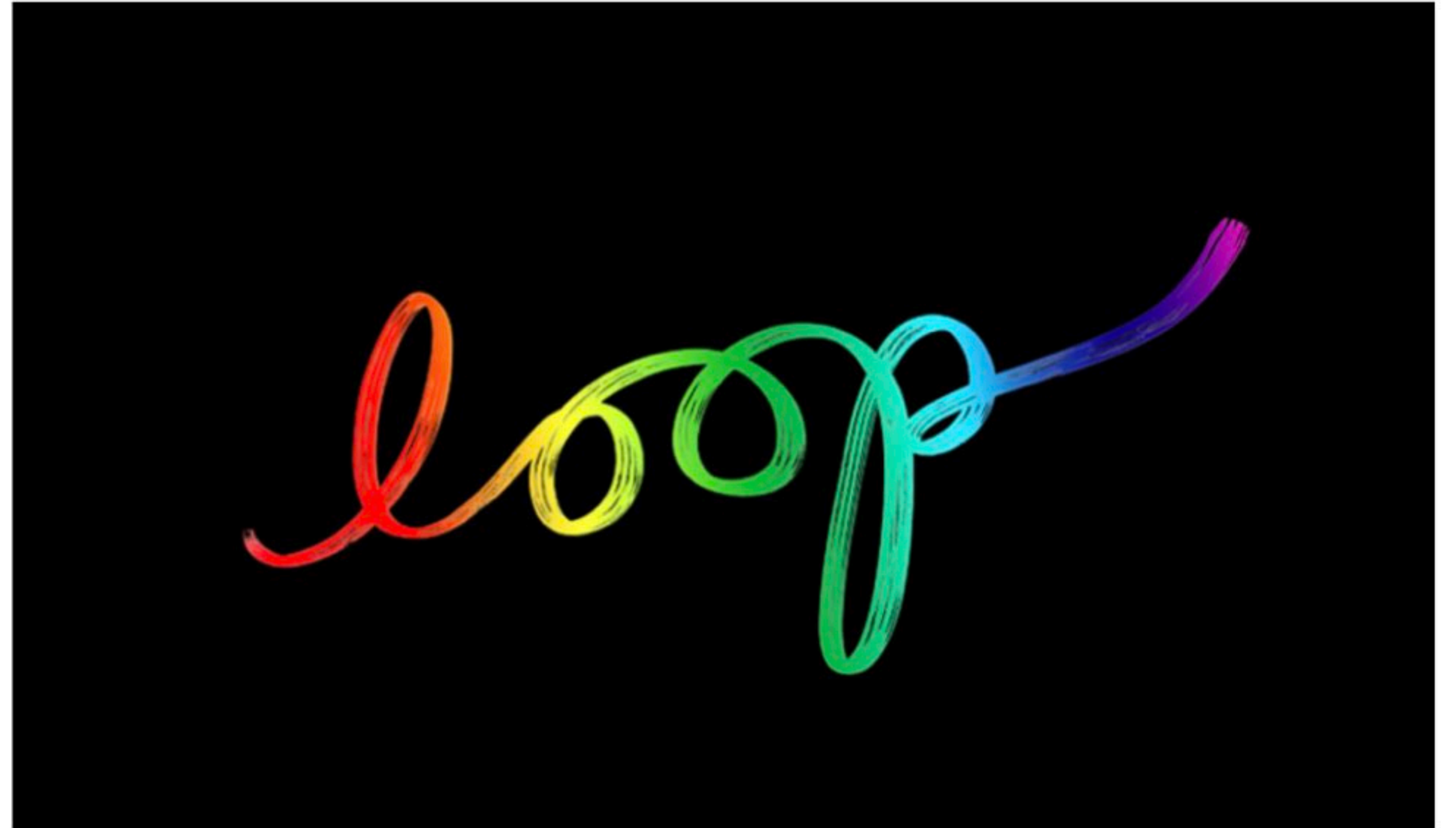
WHEN BLOOD STASIS LOOKS LIKE SOMETHING ELSE

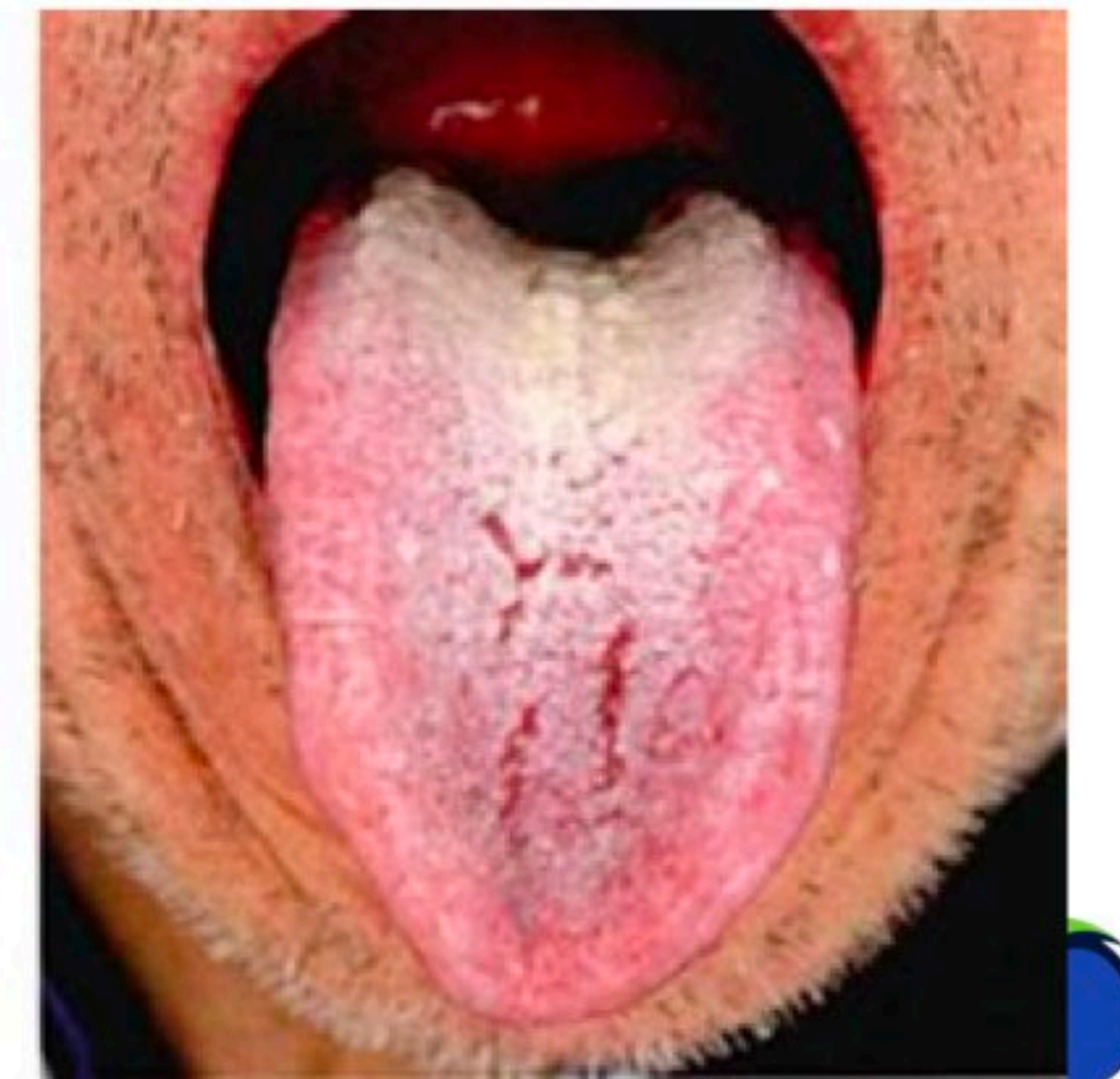
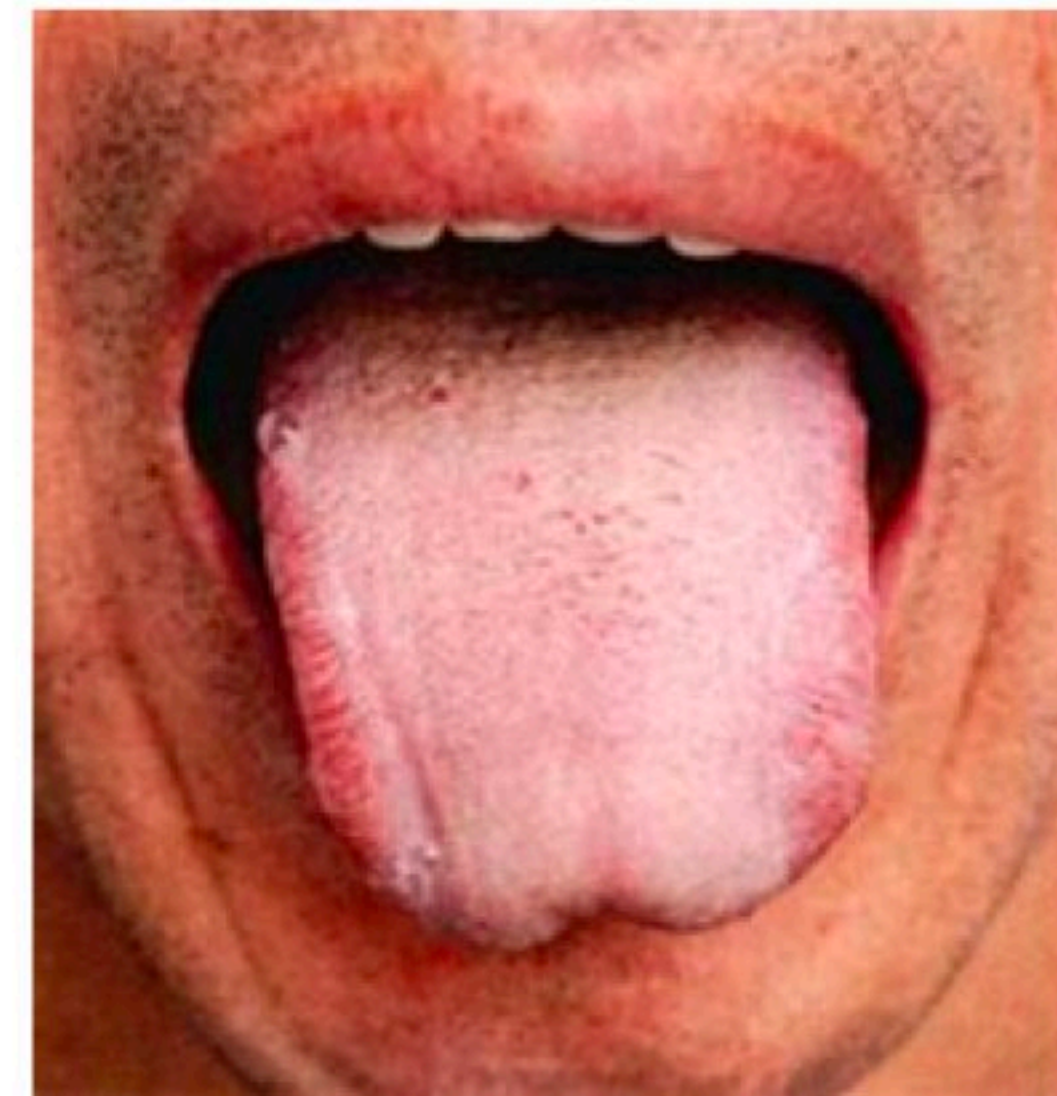


Sneaky Blood Stasis



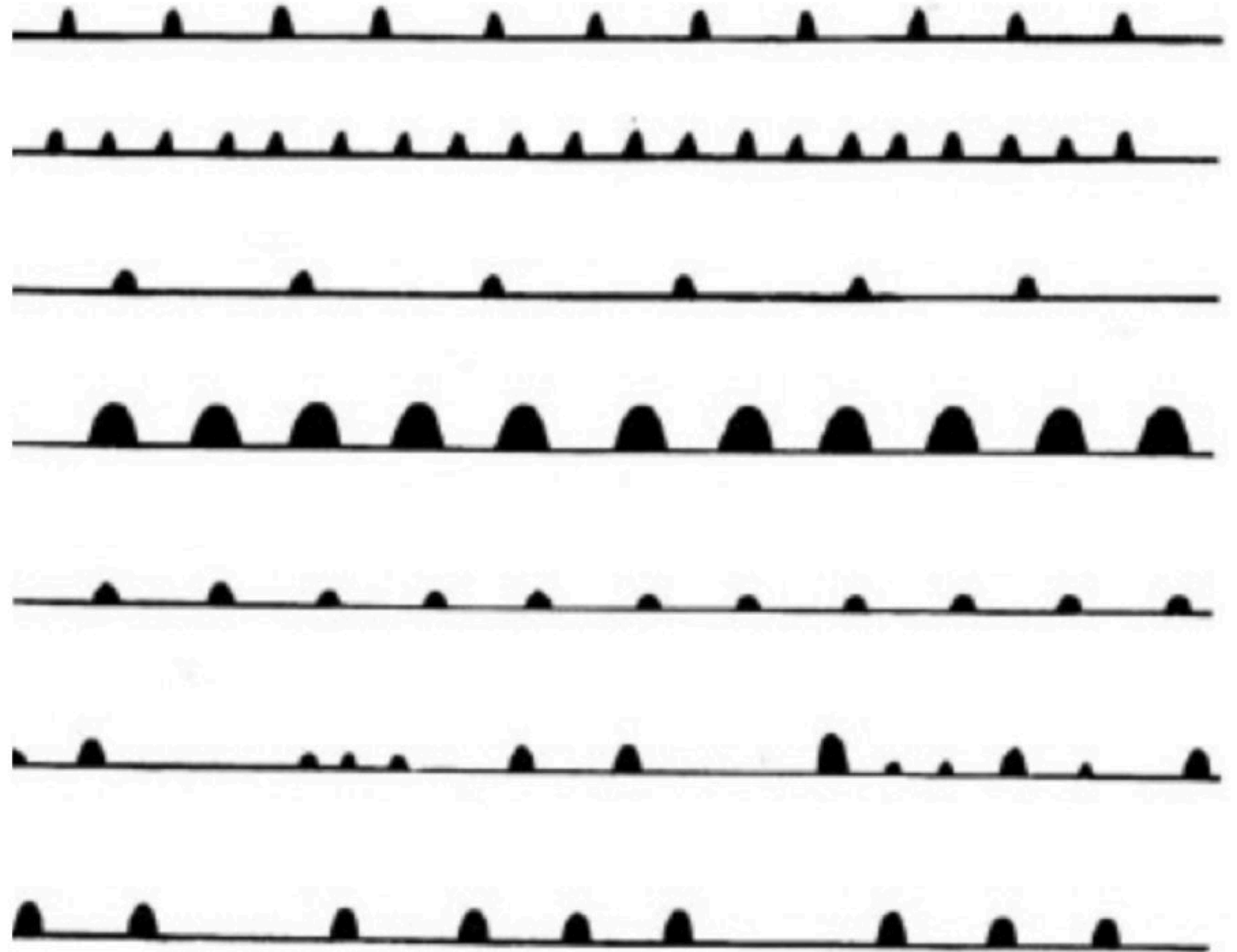
Mental/ Emotional Loops





**Looks Like
Something Else**

**Feels Like
Something Else**



Qi stagnation vs Blood Stasis

Similarities

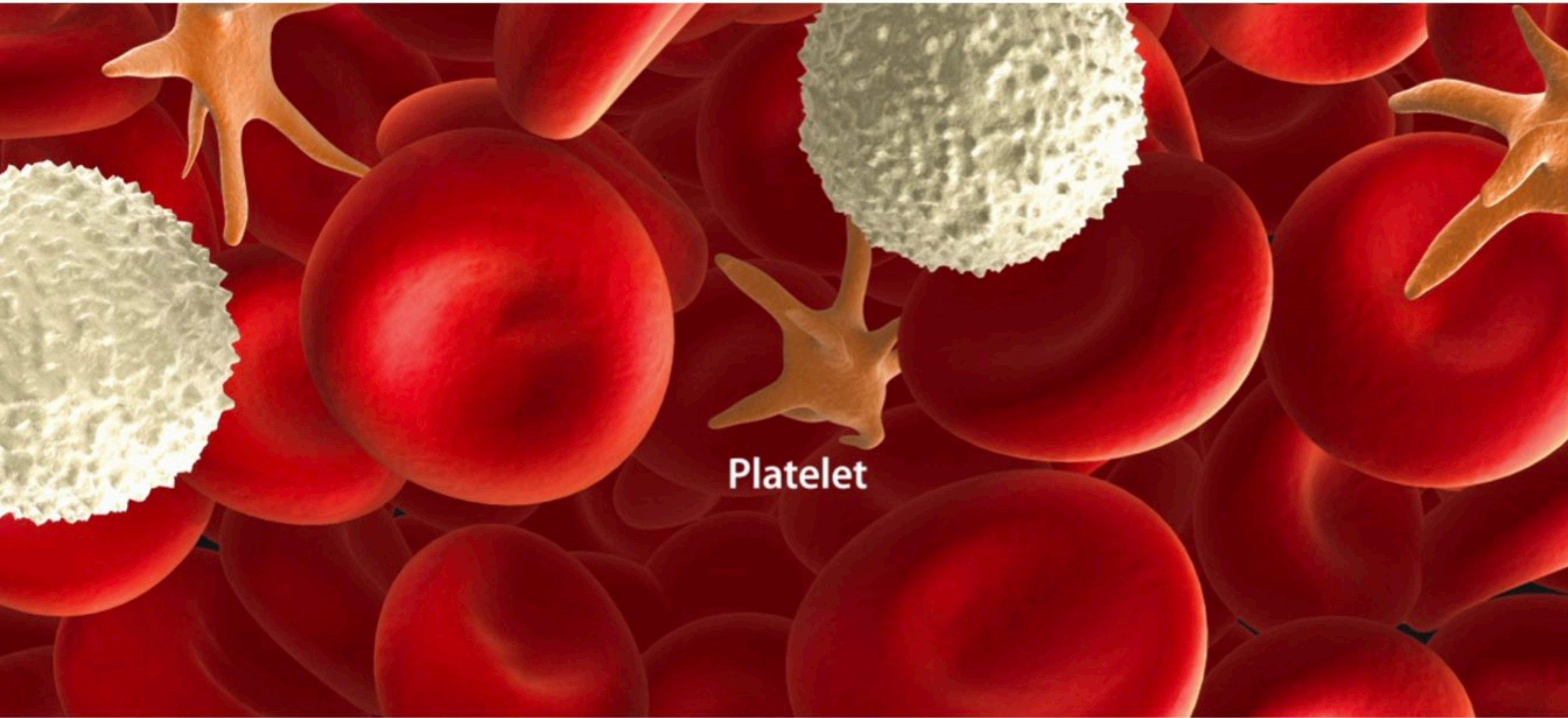
- *Anger/frustration
- *Pain - headaches, period pain
- *Depression/moody/oppression/gloomy
- *PMS - moody, irritable, breast tenderness
- *Sighing
- *Plumpit Qi
- *Nausea/loss of appetite with stress
- *Symptoms worse with stress



Qi stagnation vs Blood Stasis

- Early stages of disease
 - Responsive to a range of interventions
 - No palpable masses
 - Menstrual blood (tiny clots, red, brown)
 - Painful periods
 - PMS - moody, breast tender, bloating, headaches
 - Usually no medical diagnosis
 - Tongue: normal, maybe red edges
 - Pulse: wiry, maybe only on the left
- Lumps/tumours/growths
 - Not responsive to usual interventions
 - Clotted menstrual blood (large, black or purple)
 - Painful periods - severe, stabbing, vomiting, loss of consciousness, pain throughout cycle
 - PMS - migraines, pain prior to period, PMDD, rage, mid cycle or pre period spotting
 - Dark/purple complexion/skin/lesions
 - Diagnosis: of Endometriosis, PCOS, Cysts, Fibroids, Fibrocystic breasts
 - Tongue: sublingual veins blue or purple
 - Pulse: choppy or as per underlying pathology
- Long term disharmony, more severe
 - Combined with causative pathological factor



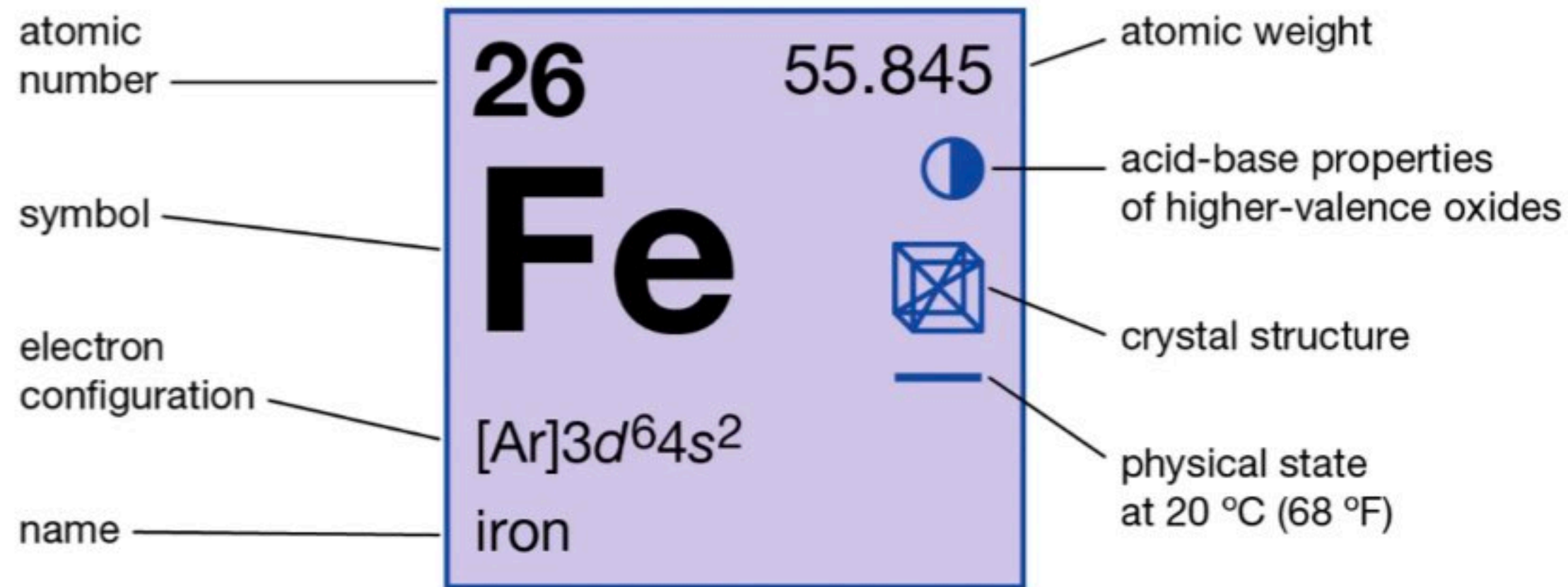


Platelets

- * 2 primary roles: Immune system and Blood clotting
- * Immune system: First responder to injury/infection - even before any white cells
- * Can create immune compounds on demand. (5HT, histamine, TGFb and others)
- * Blood: help with clotting. Thrombopoietin stimulates platelet production via IL-6 in presence of inflammation or iron deficiency
- * High = Blood Stasis, Qi Stagnation, Yin xu, Internal Heat, Toxic Heat
- * Thrombocytosis, chronic inflammation, magnesium deficiency
- * Low = Spleen Qi xu, Blood xu, Gu Syndrome, Wei Syndrome
- * B12 or folate deficiency, leukaemia, idiopathic thrombocytopenia
- * Ideal 200-250

Iron

Iron

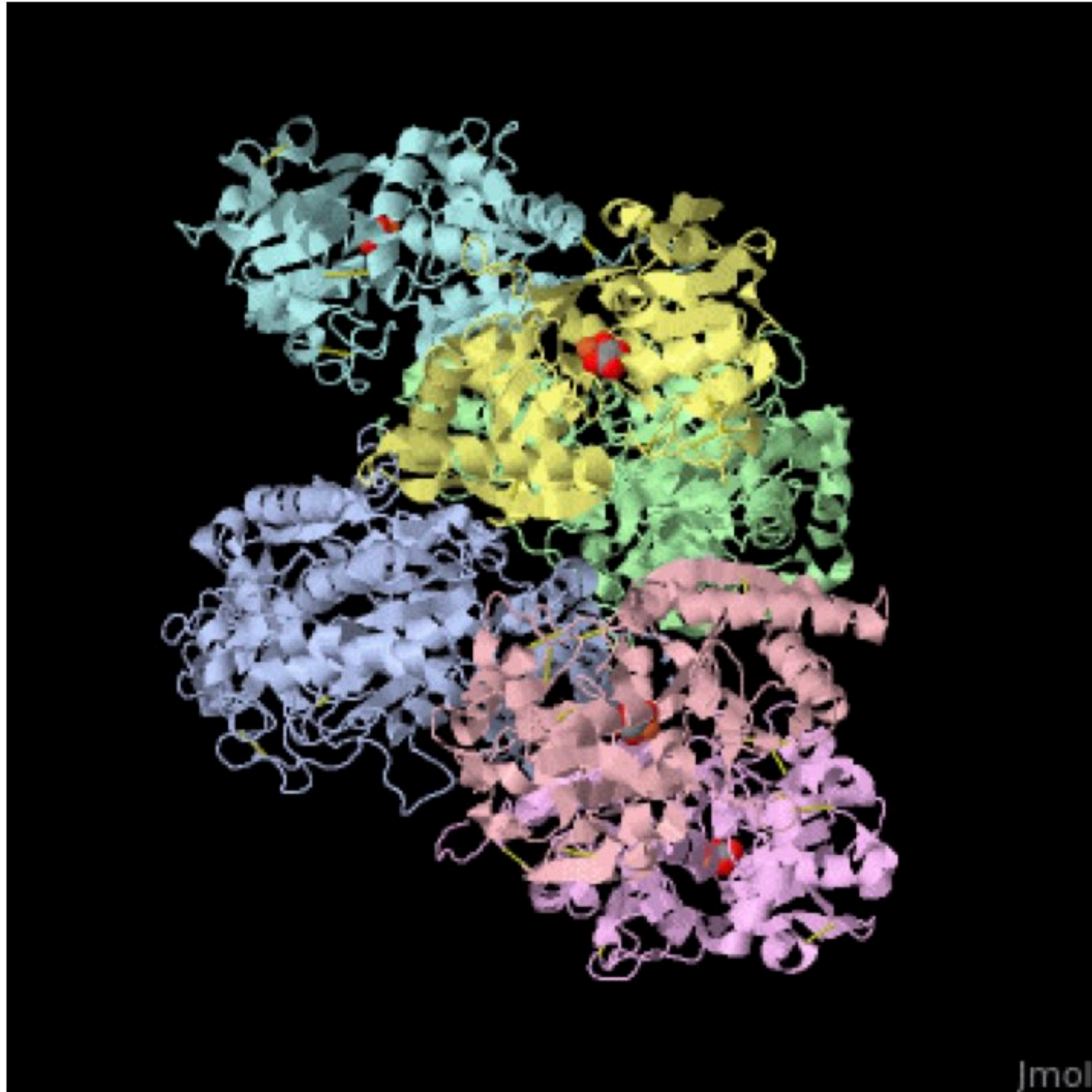


 Transition metals	 Solid
 Body-centred cubic	 Equal relative strength

- * Iron is bound to protein—mainly transferrin—and transported around the body. Small amounts of iron are stored in the liver.
- * Copper and vitamin A are important nutrients for iron metabolism.
- * High = Blood Stasis, Blood Heat, Exuberant Yang
- * Haemochromatosis, liver disease, Gilbert's syndrome, b vitamin deficiency, copper deficiency.
- * Low = Blood xu, Qi and Blood xu
- * Anaemia, hypochlorhydria, low protein intake, excessive bleeding.
- * Ideal 14-22 umol/L
- * 78-123 g/dL

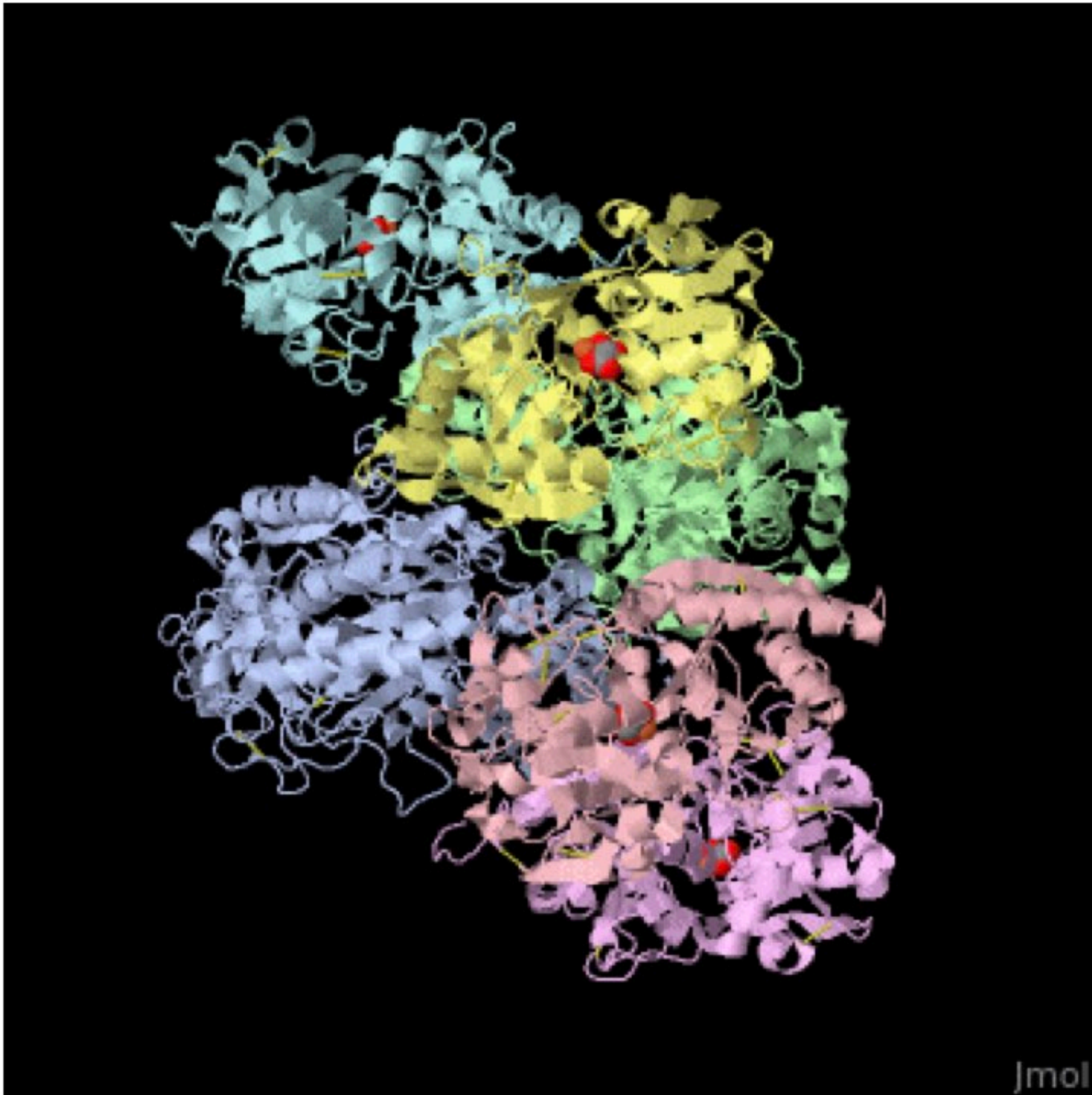


Transferrin



- * Transferrin is a protein that transports iron in the blood. It is made in the liver.
- * Represents the overall capacity of the body to deliver iron throughout the system
- * High = Anemia, Blood xu.
- * Low = infection, inflammation.
- * Ideal 2-3.6g/L
- * 50-66 umol/L

Transferrin Saturation



- * This is a calculated value that represents the percentage of transferrin proteins that are saturated with iron
- * High = Blood Stasis, Blood Repletion
- * haemochromatosis, haemolytic anaemia, megaloblastic anaemia, thalassemia, cirrhosis, lead poisoning, protein deficiency, b vitamin deficiency
- * Low = Blood x
- * chronic illness, iron deficiency, low copper
- * Ideal 28-35%



Ferritin

- * Protein that stores iron.
- * Is an acute phase reactant, increases in response to inflammation, infection.
- * High = Blood Stasis, Blood Heat
- * Infection, cancer, parasites, chronic inflammation, haemochromatosis, autoimmune disease
- * Low = Blood xu, Liver Blood xu
- * Iron deficiency,
- * Ideal 50-150 pmol/L
- * 22 - 66 mg/L



Medical Treatment Strategies



Medications During Pregnancy

- * **Ibuprofen:** Category C. Alternative medications preferred during pregnancy. Can be used cautiously in the first and second trimesters under medical supervision. Not recommended in the third trimester due to risks such as premature closure of the ductus arteriosus, oligohydramnios, and potential effects on fetal renal function.
- * **Aspirin:** Low-dose (≤ 150 mg/day): Category A (safe in low doses for specific indications, such as pre-eclampsia prevention).
- * High-dose: Category C (potential harm in later pregnancy due to effects on fetal circulation and renal function).
- * **Progesterone:** Natural progesterone (micronized): Category A (commonly prescribed for luteal support and recurrent miscarriage prevention).
- * Synthetic progestins: Classification depends on the specific compound but often fall under Category B (limited evidence of harm).
- * **Clexane:** Category C (safe in pregnancy; does not cross the placenta but classified as C due to lack of controlled human studies).
- * **Prednisolone:** Category C (considered safe at low doses when needed for autoimmune conditions or inflammation; potential risk of fetal growth restriction or adrenal suppression with prolonged high doses).
- * **Paracetamol:** Category A (safe for use in pregnancy, commonly recommended for pain and fever).
- * **Maxalon (Metoclopramide):** Category A (safe for nausea and vomiting during pregnancy).
- * **Antihistamine:** First-generation (e.g., promethazine, chlorpheniramine): Category A (safe in pregnancy, though sedating).
- * Second-generation (e.g., loratadine, cetirizine): Category B1 (limited human data, but animal studies show no harm).



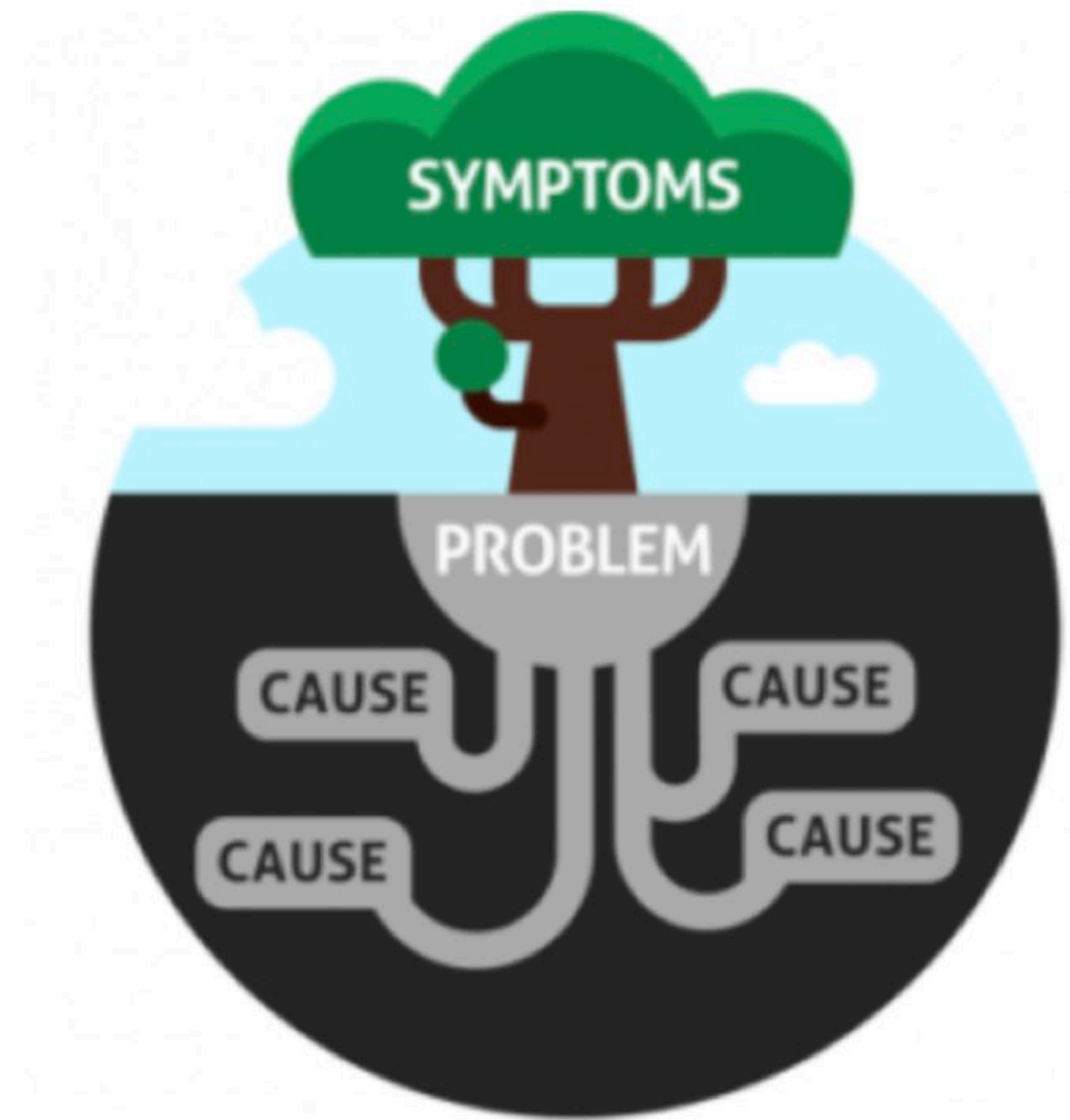
Treatment Strategies

Helping people to find their way back home



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Finding the Balance



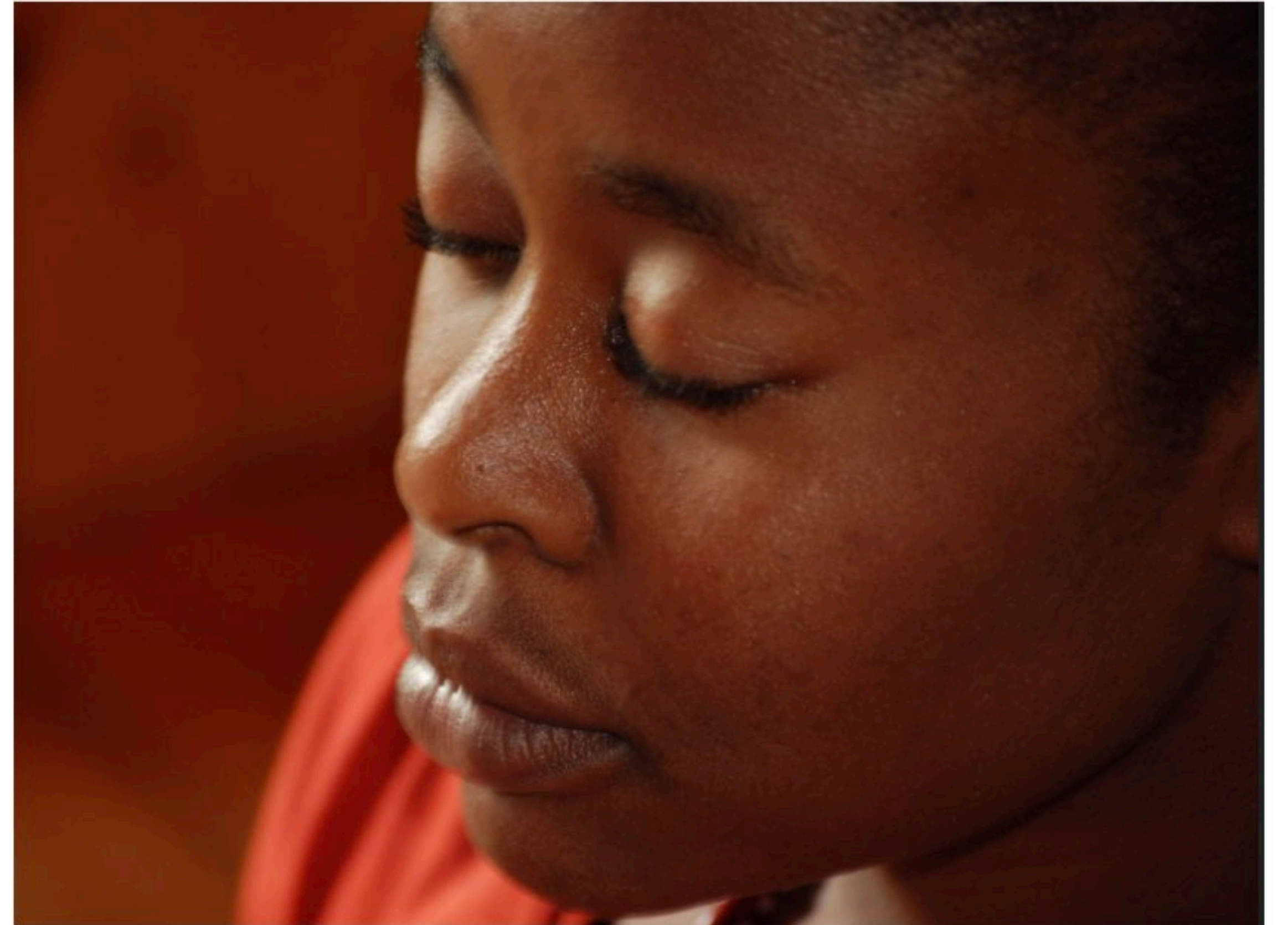
Root vs Branch

Finding the Right Balance:

How well resourced is the patient?
How strong are their symptoms?
Have I identified the correct root cause(s)?



Treat the Shen



Next Steps

Blog Articles:

<https://www.clarepyers.com/blog/2024/11/21/folic-acid-v-methylfolate-for-pregnancy>

<https://www.clarepyers.com/blog/choline-and-pregnancy>

<https://www.clarepyers.com/blog/vitamin-a>

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