

The Clinician's Handbook of Natural Medicine, 3rd Edition
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CLASS: G550 - A
Test Questions Part One

Acne Vulgaris and Acne Conglobata

I DO NOT RECOMMEND that you give your clients 150,000 IU of Vitamin A. It is reasonable to give them 25,000 IU of vitamin A (not beta-carotene) for 30-60 days followed by a lower dosage if needed.

1. The therapeutic nutritional considerations include?

- (A) Recommend a diet that is high in carbohydrates (10% protein, 70% carbs, 20% fat).
- (B) Recommend a diet that is high in dairy products like milk and increase carbohydrates.
- (C) Recommend a high-protein diet (45% protein, 35% carbs, 20% fat) and limit milk/dairy.

2. The therapeutic considerations include?

- (A) Recommend vitamins A, C, E, chromium, selenium, zinc, a probiotic, and vitamin B6. Also consider *Calendula* soap and a topical nicotinamide solution to reduce inflammation.
- (B) Recommend OTC products that contain coal tar derivatives. Also recommend 300,000 IU vitamin A as retinol.
- (C) Recommend that they see a dermatologist to obtain the very safe and effective prescription for Accutane while the acne is a mild case to prevent it from getting severe.

Affective Disorders

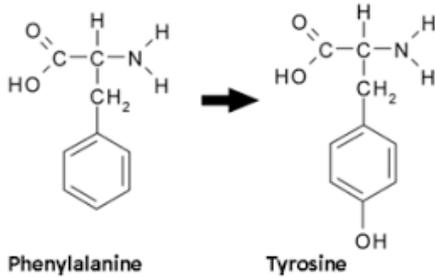
3. Depression has many root causes and includes learned helplessness. Which statement is TRUE?

- (A) Optimistic people have a greater risk of depression while pessimists are immune to feelings of helplessness and depression.
- (B) Helping patients (we have clients!) gain control over their lives produces greater brain biochemical change than drugs.
- (C) Animals can be experimentally conditioned to feel and act helpless but humans are immune to conditioning.

4. The following organic factors most likely contribute to depression:

- (A) The feeling that you are in control of your life and you have a great circle of friends. Your diet is abundant with fresh wholesome foods and water.
- (B) You have nutritional deficiencies, allergies, drink alcohol and coffee in abundance, and experience hypoglycemia. In addition your diet consists of fast food choices because you are feeling overwhelmed and stressed.
- (C) There are no known nutritional factors or environmental chemicals that contribute to depression.

- True or False?** Heavy metals (lead, mercury, cadmium, arsenic, nickel, and aluminum), solvents, pesticides and herbicides have an affinity for nervous tissue and lead to symptoms of depression, headache, confusion, mental illness and more.
- True or False?** Deficiencies in vitamin D, fatty acids, and B vitamins (thiamine, riboflavin, biotin, pantothenic acid, B6, folic acid, and B12) do not alter brain function.
- True or False?** The use of 5-HTP and tyrosine as monoamine precursors offers a natural alternative to the use of MAOs and tricyclics for influencing monoamine metabolism.



Monoamine oxidase inhibitors are a class of drugs that inhibit the activity of one or both monoamine oxidase **enzymes** (monoamine oxidase A and B). They are used as anti-depressants and for panic disorders and social phobia.

The thyroid gland combines tyrosine and iodine to make thyroid hormones. L-tyrosine is a precursor of adrenaline, dopamine and noradrenaline. Phenylalanine is an essential amino acid (must be provided by food). Tyrosine is a conditional nonessential amino acid and can be formed by the hydroxylation of phenylalanine in the liver when the intake of tyrosine in the diet is low.

- Only three botanicals/herbs are listed in this book for consideration: *Hypericum perforatum*, *Piper methysticum*, and *Ginkgo biloba*. In reality our medicine chest contains several effective herbs. Do remember the absolutely true statement about St. John's Wort: "**Beware of hyperforin's enhancement of drug degradation, including contraceptives, by liver cytochrome p450 enzymes.**" **What does "enhancement of drug degradation" mean?**

- It is just more hype by the medical community to scare people about the use of herbs.
- Hypericum is a potent liver herb that enhances the liver's ability to detoxify toxins which includes drugs.

St. John's Wort: "SJW produces dozens of biologically active substances, although two—hypericin (a naphthodianthrone) and hyperforin (a lipophilic phloroglucinol)—have the greatest medical activity. Other compounds, including the flavonoids rutin, quercetin, and kaempferol, also appear to have medical activity. *H. perforatum* has been intensively studied on isolated tissue samples, using animal models and through human clinical trials. The effectiveness of SJW as an antidepressant agent is particularly well studied, and the underlying mechanisms are well understood. SJW preparations have relatively few adverse effects when taken alone at the recommended dosages. However, numerous interactions with other drugs have been reported. **Recent research shows these interactions result from the ability of SJW constituents to induce intestinal or hepatic enzymes that either remove drugs from the body or metabolize them to inactive forms.**" - <https://www.ncbi.nlm.nih.gov/books/NBK92750/>

- Which statement is true for bipolar depression treatment.**

- Clients expressing symptoms of bipolar depression are given the standard treatment of lithium or lithium and an antidepressant. They are both very effective for controlling the lows in bipolar depressives.
- Lithium stabilizes mood and prevents the manic phase but antidepressant drugs occasionally induce mania and hypomania. It is difficult to control lows in bipolar depressives with drugs.

10. Clients with alcohol dependence have multiple nutritional deficiencies. **Which herb is a full spectrum treatment for alcohol-related liver disease and extends the life of alcoholics?**
 (A) *Silybum marianum* (B) *Scutellaria spp.* (C) *Zingiber officinale*
11. Alzheimer's Disease involves a progressive mental deterioration, loss of memory and cognitive functions, and results in the inability to carry out activities of daily life and is referred to as dementia. **Which metal concentrated in the neurofibrillary tangles and significantly contributes to Alzheimer's Disease?** *I noticed that the listed sources of this metal does not include vaccinations!
 (A) Mercury (B) Cadmium (C) Aluminum
12. **True or False?** Drug toxicity is the most common reversible cause of dementia.
13. Which **herb** contains 3-n-butylphthalide and was found to reduce total cerebral beta-amyloid plaque deposition and lowered brain beta-amyloid levels?
 (A) *Allium* (onion) (B) *Apium* (celery/celery seed) (C) *Allium* (garlic)
14. Which **alkaloid** is isolated from the moss *Huperzia serrata* that is non-toxic and has shown considerable benefit for dementia by improving memory, cognition, and behavior in Alzheimer's Disease?
 (A) Huperzine A (HupA) (B) Curcumin (C) Huperzia
15. Angina pectoris results when oxygen supply and occasionally other nutrients are inadequate for metabolic needs of heart muscle. **Which nutritional supplement is an essential component of mitochondrial energy production and must reach blood levels of 2.5 mcg/mL for efficacy?**
 (A) Magnesium (B) CoQ10 (C) Niacin
16. Magnesium deficiency may play a major role in angina/coronary vasospasms. Both magnesium and potassium have been linked to sudden death via myocardial infarction in men. **Which magnesium form is NOT listed under nutritional supplements for angina?**
 (A) Citrate, Aspartate, or other Krebs cycle intermediates
 (B) Magnesium Oxide

"Inorganic bound magnesium (e.g. oxide and chloride), is the cheapest and most widely available magnesium supplement on the market. Unfortunately, with a bioavailability of only 4%, very little is absorbed, and this causes rapid diarrhea, making it a more effective laxative than nutritional supplement. Second, amino acid bound magnesium (taurate, glycinate) has an upper to mid-range bioavailability, but is best tolerated, and therefore recommended for people with sensitive bowels. Finally, magnesium bound to Krebs cycle intermediates (citrate, fumarate, malate, and succinate) has the highest bioavailability of 90%, and has the advantage of feeding directly in to the Krebs cycle to produce ATP, which has been shown to improve energy and combat fatigue." - Dr. Michael Long, ND, Optimum Integrative Health Centre

17. **True or False?** Aphthous Stomatitis (ulcers/canker sores found anywhere on mucosa) is a common condition affecting 20% of the population. While there is no single factor solely responsible for initiating the aphthous lesions we do know that it is not a reaction to gluten and no nutritional deficiencies are known to initiate the lesions.

18. **True or False?** Aphthous lesions may be induced by non-food allergens including benzoic acid, cinnamaldehyde, nickel, parabens, dichromate, and sorbic acid. Thiamin (B1) deficiency is the most significant but deficiencies of iron and most B vitamins need to be corrected.
19. Bronchial asthma is a hypersensitivity disorder resulting in bronchospasms, mucosal edema, and excessive excretion of viscous mucus that can lead to ventilatory insufficiency. **Which of the following is considered the strongest risk factor?**
- (A) Environmental and genetic factors
 - (B) Immune system response to allergies
 - (C) History or presence of atopic dermatitis

Atopic dermatitis (eczema) is a condition that makes your skin red and itchy. It's common in children but can occur at any age. Atopic dermatitis is long lasting (chronic) and tends to flare periodically. "There is increasing consensus about the significance of food allergens in the pathogenesis of atopic dermatitis (AD) in infancy and childhood, with **cow's milk and egg accounting for most of the reactions**. Previous studies have indicated that **multiple food sensitization, such as cereals, is very common in patients with cow's milk allergy (CMA)**." - <https://www.ncbi.nlm.nih.gov/pubmed/12911779>

"Early childhood use of **antibiotics is associated with an increased risk of developing asthma and allergic disorders in children who are predisposed to atopic immune responses**. These findings support recent immunological understanding of the maturation of the immune system." - <https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2222.2000.00939.x>

The Vegan Diet section under Asthma: Was the improvement because the participants didn't eat any animal products or was it because they excluded dairy products, chlorinated water, sugar, chocolate, ate many vegetables and fruits and restricted grains? Also, in the next section they say children who eat fish more than one a week have 1/3 the asthma risk of those who do not. Food for thought!

20. Atherosclerosis is considered an underlying condition that results in cardiovascular disease (heart disease, coronary artery disease, and myocardial, pulmonary, and cerebral infarction). The first step to atherosclerosis is usually damage to the endothelium (internal layer) lining of the arteries. **Damage to, or dysfunction of, the arteries is the result of:**
- (A) Insulin resistance; impaired repair processes; reactive oxygen and nitrogen species (free radicals)
 - (B) Heavy metal toxicity; hyperhomocysteinemia (high levels of homocysteine); nitric oxide availability
 - (C) All of the above
21. **True or False?** High blood pressure is often a sign of considerable atherosclerosis and a major risk factor for heart attack or stroke.
22. **True or False?** Vitamin E, Coenzyme Q10, and selenium work against each other - do not use them together.
23. **True or False?** Magnesium and potassium supplementation effectively treats a wide range of cardiovascular events (angina, arrhythmias, congestive heart failure, and high blood pressure).
24. Nutritional supplements recommended for Atopic Dermatitis (Eczema) include vitamin E, essential fatty acids, and probiotics. For botanical medicines the text lists a Chinese herbal formula that has

shown benefits in double-blind studies. **Based on your herbalism studies, which group of herbs located below would be the best choice for eczema?**

- (A) Rhodiola, Valerian root, Black Cohosh, and a dash of Licorice
- (B) Oregon grape, Burdock root & seed, Dandelion, and a dash of Poke root
- (C) Ginkgo, Astragalus, Nettles and a dash of cayenne

Attention Deficit Hyperactivity Disorder (ADHD)

25. **True or False?** Virtually every study (both negative and positive) has demonstrated that some hyperactive children consistently react with behavioral problems when challenged with specific food additives (artificial food colorings, flavors, and preservatives).
26. Children with ADHD show **multiple nutrient deficiencies**, highlighting the importance of broad-spectrum nutritional support. **The following minerals are critical:**
- (A) silicon, sodium, & boron
 - (B) copper, selenium, & chromium
 - (C) iron, zinc & magnesium
27. **True or False?** Gut mucosal immunity may be impaired in those with ADHD. This impairment may lead to an increased susceptibility to gut pathogens and food allergies. Also, intestinal/gut permeability may be altered because of food allergies (causes inflammation).

“Vitamin A and its derivatives have been shown to regulate the growth and differentiation of intestinal cells, whereas vitamin A deficiency is associated with increased susceptibility to infection in both human and animal models...Cross-sectional investigations of children with high rates of **subclinical** vitamin A deficiency showed that serum retinol concentrations are inversely correlated with intestinal permeability. Apart from vitamin A, also vitamin D seems to play a role for the intestinal barrier. Vitamin D deficiency, a characteristic of IBD, is correlated with the severity of disease .”- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4253991>

28. **True or False?** Under the therapeutic approach for ADHD there are 4 steps. While the following statement is not in the book it will absolutely be a stumbling block for most parents: **Step one is easy for the majority of parents because children who have grown up with junk and fast foods loaded with sugar and artificial flavors and colors will crave vegetables and whole foods.**

Note: Liquid and/or chewable vitamins, minerals, probiotics and fish oils will be needed before starting to eliminate excess bacteria, yeast, and parasites. As the body heals and gets nutrients most children will become less picky. Diet changes with most children take time (better choices and gradually finding replacements for the foods that have become an “addiction”).

29. With chronic bacterial sinusitis, antibiotics are of little or no benefit. (Most have been on several antibiotics leading to yeast and bacterial overgrowth in the bowels.) If clients also have a stomach ulcer or take stomach acid reducers, urticaria (hives/skin rashes), or exercise-induced asthma symptoms it would be wise to have them make an appointment to rule out H. pylori. **Hydrastis canadensis is recommended and the dose is based on the amount of:**
- (A) sidosides
 - (B) polyphenols
 - (C) berberine

30. Testicular and adrenal androgens decline with aging, but total plasma estradiol does not decline. Fat cells contain aromatase (an enzyme), which converts certain androgens to estrogen. The use of soy is recommended in this book because it is high in phytoestrogens which may block the stronger estrogens from adhering to the cells by filling in the receptor sites. There are other high phytoestrogen foods/herbs that do not contain the risks of soy-based foods (hops is not recommended but I would recommend red clover as part of the herbal formulation). **Which recommendations below would benefit men with enlarged prostate?**

- (A) Exercise, lose weight, eliminate bad fats (fried food, overconsumption of vegetable/omega-6 fatty acids), increase vegetables and fruits, decrease animal fat, limit alcohol and coffee, avoid pesticides, and take supplements and herbs as determined by your natural health professional.
- (B) Exercise, increase animal fats, eliminate fruit, decrease coffee and alcohol consumption, use canola and soy oil generously, take supplements and herbs as determined by your natural health professional.

“Objective: To assess the effect of an isoflavonoid extract from red clover on the prostate, liver function, quality of life, and sexual function in men with an initial elevated prostate-specific antigen (PSA) level and negative prostate biopsy findings during a 1-year treatment period...A total of 20 men (mean age 65 years) were **treated with a daily 60-mg dose of an isoflavone extract for 1 year**. Conclusions: Daily oral administration of 60 mg of an isoflavone extract was well tolerated and caused no side effects. The significant increase in liver transaminases and the significant decrease in total PSA levels by >30% indicates that patients, general practitioners, and urologists should be informed about these potential effects of red clover extracts and possibly other phytoestrogens, on liver transaminases and elevated total PSA levels.”- <https://www.ncbi.nlm.nih.gov/pubmed/18308079>

31. **True or False:** Benign Prostatic Hyperplasia (BHP) is an enlarged prostate that causes bladder outlet obstruction. It is the fourth most common diagnosis in older men with up to 50% of men over 50 affected and 90% will have BHP by the age of 80. Symptoms of BPH and prostate cancer can be similar. **False-positive and false-negative PSA test results (to determine cancer) are common; therefore the benefits and risks of such testing should be considered carefully.**

32. **True or False?** More than 100 types of bacteria, viruses, and fungi cause bronchitis or pneumonia. The three most common forms of pneumonia are viral, mycoplasmal, and pneumococcal types. Viruses cause 90% of cases of acute bronchitis resulting in inflammation of mucous membranes of bronchi while pneumonia causes inflammation of the lungs. **In pneumonia, white blood cells take up large amounts of vitamin C and fever causes the body to excrete more retinol (vitamin A).**

Note: Homeopathic nosodes that are specific for mycoplasma, bacteria, and viral pneumonia causing species used with herbal formulas and supplements (A, C, D, E, zinc...) offer a multisystem approach for recovery from both bronchitis and pneumonia. I would also use standardized milk thistle/silybum with adults and have them at least temporarily eliminate grains, dairy, and fast/junk food.

CANCER is a subject with much controversy surrounding it when it comes to treatment. Almost every case of cancer is the result of a chronic state of toxicity and low nutrients (even one!) which may lead to inflammation, oxidative stress, mitochondrial dysfunction, poor clearance of hormones and toxins within the liver, high blood glucose, cellular damage (membranes, DNA, RNA...), viral, fungal, and bacterial infections. Prevention is key! I absolutely agree with the author about secondary prevention in this book and wish people wouldn't wait until they have cancer to make changes.

33. **True or False?** Natural medicine alone may be inadequate treatment for most cancers. Approximately 40% of cancers are preventable with appropriate lifestyle and diet (some say 90% are preventable).
34. Carpal tunnel syndrome may result from low B6 (especially when it occurs during pregnancy), repetitive activities with extended wrists or flexed wrists, diabetes (nerve damage), hypothyroidism, and more. While B6 and B12 are implicated in the text, B vitamins work together and if a person is low on a couple they are likely low in all and therefore need a natural/food-based B-complex supplement with at least 30 mg of B6 within the formula. **In addition to B vitamins the following changes are needed:**
- (A) Increase protein to 2 g/kg body weight, avoid foods containing yellow and blue dyes, and take the very effective nonsteroidal anti-inflammatory drugs.
 - (B) Limit daily protein to 0.75 g/kg body weight, avoid all sources of hydrazines (hydrazine dyes, penicillamine, oral contraceptives), and foods containing yellow dyes.
35. Celiac Disease (CD) is described best as :
- (A) Chronic intestinal malabsorption caused by intolerance to gluten and its polypeptide derivative gliadin. In addition to wheat, the grains rye, barley, and oats contain proteins that trigger CD. Early introduction to cow's milk is a major etiologic factor while breastfeeding and delaying the introduction to cereals decreased risk. Gluten may also be a pathogenic factor in schizophrenia.
 - (B) Chronic intestinal malabsorption caused by intolerance to galactose and its polypeptide derivative gliadin. Gluten-free foods include oatmeal which may be introduced at a young age and decreases the risk of CD. Cow's milk allergies are not common among children diagnosed with Celiac disease. Individuals with celiac disease may consume triticale, buckwheat, and millet.
36. Cervical Dysplasia is a precancerous lesion with risk factors similar to those of cervical cancer. In addition to specific HPV infections the following are also risk factors:
- (A) Poor nutritional status, oral contraceptives, smoking, Chlamydia, and other infectious agents.
 - (B) Early age of first intercourse, multiple sex partners, and a history of genital warts
 - (C) All of the above
37. **True or False?** Approximately 60% of those in their teens and 20s test positive for HPV DNA by polymerase chain reaction. A total of 70% of women clear the virus within the first year. Even HPV type 16, detected in 60% of cancers, tends to result in regression.
38. **True or False?** Chronic Candidiasis (yeast) symptoms can occur in any part of the body. Symptoms include general fatigue, bloating and gas, chemical sensitivities, low immune function, IBS, eczema and psoriasis, depression, anxiety, frequent bladder infections, and more. **If symptoms remain after yeast is eliminated, consider small intestine bacterial overgrowth, pancreatic enzymes, and berberine containing plants.**
39. **True or False?** Liver support is highly recommended for those with Candida overgrowth only if they have a history of fatty liver disease or elevated liver enzymes.

CHRONIC FATIGUE SYNDROME

CFS is truly a multifactorial condition. B12, folate (not folic acid), iodine, magnesium, vitamin D, and a host of other nutrients are often needed in addition to a bowel, liver, and lymph protocol. Homeopathic nosodes for EBV, mycoplasmas, staph and strep, bowel pathogens, *Borrelia* and co-infections related to Lyme disease are all possible remedies (multi-species homeopathics are an excellent way to target a group of organisms at one time). Remember that a body without sufficient nutrients and intestinal absorption is unable to “put up a great fight” against infections. Chronic conditions require a protocol that starts with lowering bowel inflammation, supplying nutrients, and liver support. Work in layers to uncover the root cause buried beneath chronic health issues.

“Taken together, our study provides clear evidence that deficiency of EBV-specific immune response is present in CFS. As EBV is known to be controlled by cell-mediated immunity, a diminished memory T- and B-cell response may result in impaired control of EBV. EBV replication is risk factor for development of lymphomas and autoimmune diseases both occurring at enhanced frequencies in CFS patients.” - <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085387>

40. **True or False?** Excessive gastrointestinal permeability (leaky gut) is a common finding in CFS.

41. Congestive heart failure is the inability of the heart to pump enough blood effectively. Causes include:

- (A) Long-term hypertension, previous myocardial infarction, disorder of heart valve(s), cardiomyopathy, and chronic lung disease.
- (B) Long-term high blood pressure, previous heart attack, leaky or damaged heart valves, disease of the heart muscle, and persistent lung infections.
- (C) Both A & B because they say the same thing

“There is mounting evidence that chronic kidney disease itself is a major contributor to severe cardiac damage and, conversely, that congestive heart failure is a major cause of progressive chronic kidney disease. Uncontrolled congestive heart failure is often associated with a rapid fall in renal function and adequate control of congestive heart failure can prevent this. **The opposite is also true: treatment of chronic kidney disease can prevent congestive heart failure...**Use of **non-steroidal anti-inflammatory drugs** doubles the rate of hospitalization in patients with congestive heart failure. **Anemia** has been found in one-third to half the cases of congestive heart failure, and may be caused not only by chronic kidney disease but by the congestive heart failure itself...Congestive heart failure, chronic kidney disease and anemia therefore appear to act together in a vicious circle in which each condition causes or exacerbates the other..” - <https://www.ncbi.nlm.nih.gov/pubmed/15202610>

42. When cystitis is persistent or reoccurs often and urine samples are negative for infection, the following should be considered:

- (A) Finding the root cause for bowel inflammation (common in cystitis clients), enhancing the integrity of both intestinal and bladder epithelium, decrease or eliminate coffee, tea, soda, alcohol, citrus fruits and juices, artificial sweeteners, and hot peppers. **Focus on alkalizing the urine with the use of potassium citrate and sodium citrate and use herbal blends that include astringent, antiseptic, and anti-microbial herbs.**
- (B) Finding the root cause for bowel inflammation (common in cystitis clients), enhancing the integrity of both intestinal and bladder epithelium, decrease or eliminate coffee, tea, soda, alcohol, citrus fruits and juices, artificial sweeteners, and hot peppers. **Focus on acidifying the urine with cranberry juice and ascorbic acid which helps the herbs commonly used for UTIs.**

43. **True or False?** Dermatitis herpetiformis is described as “celiac disease of the skin” with the average age of onset of 7.2 years of age. While a jejunal biopsy reveals villous atrophy characteristic of celiac disease, gastrointestinal (GI) symptoms are rare. Around 35% of patients are not adequately helped by a gluten-free diet because other food allergies develop from increased leakage of macromolecules across damaged GI mucosa. **Another way to say this is: Increased intestinal permeability (leaky guts) allows molecules from food to enter the blood or lymphatic system which signals a “foreign” response from the immune system against the molecules and causes additional food allergies.**
44. **True or False?** Type 2 diabetes is an autoimmune disorder that destroys the beta cells of the pancreas and is caused by food choices and lifestyles that lead to obesity.
45. **True or False?** The pancreas can recover and continue to secrete insulin for the rest of the patient’s life when they are under naturopathic care. Under conventional care, allowing the patient to eat a high-carbohydrate diet, ultimately causes complete pancreatic failure to output insulin which requires full use of basal and bolus insulin.
46. A look at the therapeutic considerations for diabetes includes diet, psychological support, stress management, exercise and nutritional and herbal supplements. What statement best sums up the list:
- (A) Diabetics are primarily lacking enough fat and protein. If they exercise each day and manage stress the need for micronutrients as supplements are not necessary.
 - (B) Diabetics are lacking adequate levels of most minerals and vitamins and need a strict diet of low to no sugar and starch. Herbal extracts can play an important role in healing and preventing damage from high glucose levels.
 - (C) Diabetics are lacking adequate levels of most minerals and vitamins and need a strict diet of low to no sugar and starch. The use of herbs and supplements is not recommended. If the person is eating correctly there is no need for the often dangerous herbal extracts.
47. **True or False?** No single theory explains the development of endometriosis in all cases.
48. **True or False?** B vitamins help the liver inactivate estrogen while selenium aids synthesis of liver detoxification. Decreasing omega-6 fatty acids (plant oils and domesticated animal products) while increasing omega-3 fatty acids and increasing indole-3-carbinol foods are some of the considerations when working with endometriosis.

“Endometriosis affects a significant proportion of teenagers. Published studies suggest that laparoscopically confirmed endometriosis could be found in over 60% of adolescent girls undergoing laparoscopic investigation for pain, in 75% of girls with chronic pelvic pain resistant to treatment and in 70% of girls with dysmenorrhea and in approximately 50% of girls with chronic pelvic pain not necessarily resistant to treatment. Both early and advanced forms, including deep endometriosis have been reported to be present in teenagers. It has recently been claimed that deep endometriosis has its roots in teenage years.” - <https://www.ncbi.nlm.nih.gov/pubmed/26315257>

“Oral contraceptives (OCs) are a major class of prescription drug, used by a large proportion of women **starting from early adolescence**. . . In particular, a report from the World Health Organization (WHO) points out that the influence of OCs on nutrient requirements is a topic of high clinical relevance and should, therefore, receive great attention. It has been shown that the key nutrient depletions concern folic acid, vitamins B2, B6, B12, vitamin C and E and the minerals magnesium, selenium and zinc” - <https://www.ncbi.nlm.nih.gov/pubmed/23852908>

Birth control pills are used by more than 10 million women in the U.S. Because contraceptives are often taken over extended periods of time, women may experience chronic low levels of important vitamins and minerals. Hormone replacement therapy (or HRT) uses the same hormones as birth control pills, just different doses and proportions.

49. Botanical medicines for endometriosis include Chaste tree, dandelion root, prickly ash and motherwort tinctures in equal parts. **Which herb in the formula is most likely to directly influence the master hormone gland known as the pituitary?** _____

"In a clinical survey conducted by German gynecologists, the effect of a chaste tree preparation (Agnolyt) at a dose of 40 drops daily for 166 days was evaluated on 1542 women diagnosed with premenstrual syndrome, of which 90% reported complete relief of symptoms after an average treatment of 25.3 days. This herb may inhibit secretion of prolactin by the pituitary gland and thus may have a role in correcting some types of amenorrhea and hyperprolactinemia, and in increasing milk production in lactating women...The German Commission E allows use of chasteberry preparations for PMS, mastalgia, menopausal symptoms, and inadequate lactation." - <https://www.sciencedirect.com/topics/medicine-and-dentistry/vitex-agnus-castus>

Epilepsy is not a disease in itself. It is a symptom of disease that results in sudden, recurrent, and episodic changes in neurologic function caused by abnormalities in electrical activity of the brain. Ten percent of children who experience febrile convulsions during their first years of life will have epilepsy later in life. Symptomatic means a probable cause can be identified. Idiopathic means the disease or condition arises spontaneously or the cause is unknown and 70-80% of the epilepsy cases are considered idiopathic.

50. **True or False?** Ginkgo should be avoided in patients/clients with a history of seizures.

- END OF PART ONE