Vitamin and Mineral needs for Pregnancy and Childbirth

Note: I eliminated phosphorous and b12 because of space limitations, but both are also important in pregnancy.

By Rebecca Pugh

Vitamins

Folic Acid - helps form red blood cells and anti-bodies that prevent infection, crucial for healthy brain development because it is used in the assimilation of proteins, very important in larger amounts during pregnancy because it prevents anemia, miscarriage, premature birth, and birth defects
- too little results in anemia and neural tube defects in the baby
- too much may mask the symptoms of b12 related anemia or b12 deficiency and higher levels may actually lower b12 levels or result in gastrointestinal problems, insomnia, malaise, and irritability.
- found in green, leafy vegetables, wheat germ, nutritional yeast, eggs, whole grains, lentils, nuts, milk, and liver
- it is lost in cooking, so eating some raw sources is important

Vitamin A - prevents and fights infections, promotes healthy skin and mucous membranes, strong bones, rich blood, and good eyesight, allows for proper digestion of proteins
- too much can cause nausea, vomiting, dry skin, hair loss, dry, itchy skin
- too little can cause colds and respiratory problems, sinus trouble, rough skin, acne, dandruff and night blindness
- body absorbs it best when mashed, cooked, or pureed and can be drawn out of the body when mineral oil is ingested
- found in yellow and orange fruits, yellow, dark green, and orange vegetables, dairy products, egg yolks and liver

Vitamin B Complex

B1 - needed for healthy nervous system, good muscle tone in heart, stomach and intestines, assists the conversion of glucose into energy and balances the appetite and blood sugar through the utilization of starches and sugars
- too little results in constipation, loss of appetite, digestive problems, apathy, nervousness and poor memory
- excess of this vitamin is rare due to oral intake, there is no known toxicity, overdoses of injected b1 has been known to cause edema or trauma
- this vitamin can be lost in the refinement processes of grains and is destroyed by heat, oxidation and alkaline substances
- sources include whole grains, nuts, seeds, legumes, potatoes, nutritional yeast, bananas, and avocados

B2 - needed for assimilation and digestion of proteins, fats, and carbohydrates, aids in cell respiration, and maintenance of skin, nails, hair, and vision
- found in whole grains, dried beans and peas, seeds, leafy greens, cottage cheese, milk, and organ meats
- large quantities of this vitamin have been known to result in the loss of other b vitamins through the urine, there is no known toxicity
- too little causes digestive or skin and eye problems, cracking at the corners of the mouth, hair loss, poor lactation, sluggishness, slow growth, dizziness, trembling, vaginal itching, bloating and urinary difficulty

B6 - needed for healthy nervous system, utilization of fats, carbohydrates, and proteins, required for production of antibodies and red blood cells, helps regulate body fluids, and assists in healthy muscle formation and functioning, and hormone balancing
- too little may cause nausea, leg cramping and depression especially in pregnancy
- excessive doses have been associated with peripheral neuritis
- is destroyed by heat and ultra-violet light
- found in brown rice, wheat germ and bran, blackstrap molasses, nutritional yeast, bananas, salmon, and organ meats
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**Vitamin D** - aids in absorption of calcium and phosphorous which are necessary for bone formation, helps maintain a normal heart, nervous system, and blood clotting capabilities
- sources are exposure to sunlight, fatty fish, fish liver oils, butter, egg yolks, and milk from grazed cows
- too little can lead to bone deformities
- too much can lead to dizziness, nausea, weakness, similar to overexposure to the sun

**Vitamin C** - required for production of collagen and in healing wounds and burns, needed for healthy placenta, capillaries, and cell walls and prevents varicosities and hemorrhage, aids in assimilation of other nutrients
- too little may result in scurvy, deficiencies are associated with alcoholics, psychiatric patients, fatigue, various infections, depression, allergies, ulcers, and many other medical conditions
- too much (over 2,000mg) can cause miscarriage in early pregnancy and scurvy in the newborn from a resulting Vitamin C dependency
- is destroyed by heat, air, and light and can be “cooked out”
- found in raw or lightly cooked kale and collard greens, strawberries, citrus fruits, peppers, cantaloupe, alfalfa sprouts, and tomatoes

**Minerals**

**Iodine** - aids in healthy function of thyroid gland, which controls metabolism, growth, development, and mental balance
- too little can result in weakness, frequent infections, nervous system problems
- found in seafood, fish, sea vegetables, iodized salt and sea salt

**Iron** - in combination with other nutrients creates hemoglobin, builds the blood, increases resistance and immunity to disease and stress, and allows for muscular contraction and protein metabolism, improves respiration and prevents hemorrhage
- too much results in constipation
- too little causes weakness, low energy, weak blood and birth defects
- found in leafy dark vegetables, dried fruits, blackstrap molasses, sea vegetables, dried beans, legumes, whole grains, eggs, red meat, liver

**Calcium** - needed to form baby’s bones and teeth and maintain them in the mother, controls coagulation of the blood, contraction and release of muscles, maintains healthy nerves, normal metabolism, mineral balance, and a regular heartbeat, used for nerve and muscle relaxation and is therefore said to increase the pain threshold and reduce insomnia.
- too much results in calcium deposits
- too little causes irritability, insomnia and leg cramps
- metabolism is dependent on balance of phosphorous and the presence magnesium
- found in milk, hard cheeses, yogurt, leafy greens, almonds, sea vegetables, salmon, and blackstrap molasses

**Zinc** - healthy immune system and hormone production, organ development, healthy reproduction and release of Vitamin A from the liver, protects bones and joints.
- deficiency is associated with many problems including, acne, depression, prostate cancer, infections, and psoriasis.
- too much may result in immune suppression, premature heartbeats, dizziness, drowsiness, alcohol intolerance, increased sweating, hallucinations, and anemia
- found in oysters, shellfish, herring, nuts, seeds, beef, eggs, chicken, turkey, fruits, vegetables
Vitamin and Mineral needs for Pregnancy and Childbirth (continued)

**Sodium** - maintains fluid and electrolyte balance, prevents muscular irritability
- too little may lead to swelling and toxemia
- too much may result in hypertension, toxemia and pre-menstrual problems
- sea salt is best source, but many foods contain it, avoid junk food as a source

**Vitamin E** - is required for a normal birth, it prevents the destruction of cells and nutrients and enables the body to function with less oxygen, thus increasing endurance and stamina, aids in cell division, the healing of body tissue, normal blood clotting, and certain types of metabolism, increases the pain threshold.
- large doses may result in nausea, diarrhea, or flatulence, toxicity is rare
- found in whole grains, nuts, oils, eggs, wheat germ, legumes, and green leafy
- too much can cause abnormal attachment of the placenta and can be dangerous if there is a pre-existing heart or blood pressure condition