

<b>Nutrient</b>	<b>Mother</b>	<b>Baby</b>	<b>Food Source</b>	<b>Need to Know</b>
Vitamin A/ Beta Carotene	<ul style="list-style-type: none"> <li>- Lactation</li> <li>- Placental membranes</li> <li>- Hormones</li> <li>Essential for protein metabolism</li> <li>- Protects skin and cell surfaces</li> <li>- Activates the thymus gland and immune system</li> </ul>	<ul style="list-style-type: none"> <li>- Red blood cells</li> <li>- Fetal growth</li> <li>- Visual development</li> <li>- Hair, skin and bone development</li> <li>- Mucous membranes</li> </ul>	Algae, wheat/barley grass, carrots, sweet potato, Milk, butter, oily fish, yellow and dark green fruits and veggies, liver, eggs*, fish liver oils, garlic,	<ul style="list-style-type: none"> <li>- Levels reduced by excessive iron, light (e.g. tanning salons) and rich, greasy, and processed foods</li> <li>- Unlike Vitamin A, Beta Carotene not harmful if taken in excess</li> </ul>
Vitamin B Complex	<ul style="list-style-type: none"> <li>- Lactation</li> <li>- Metabolism of sugar and fats</li> <li>- Key in energy production</li> </ul>	<ul style="list-style-type: none"> <li>- Nerve function</li> <li>- Heart development</li> <li>- Protects against cleft palate</li> </ul>	Whole grains, nuts and seeds, leafy vegetables, nutritional yeast, legumes	Levels reduced by overcooking, infections, stress (injury, surgery and trauma too) the pill, antibiotics and intoxicants
Folic Acid	<ul style="list-style-type: none"> <li>- Red blood cells</li> <li>- Bone marrow</li> <li>- Making antibodies</li> <li>- Stabilizes appetite</li> </ul>	<ul style="list-style-type: none"> <li>- Healthy bone marrow</li> <li>- Helps spine formation</li> <li>- Cell division and genetic code transmission</li> </ul>	Sprouts, whole grains, dark green leafy vegetables, nuts and seeds, nutritional yeast, legumes, salmon, root vegetables, dates, Wheat germ	<ul style="list-style-type: none"> <li>- Important for mother to start before pregnant</li> <li>- Deficiencies linked to birth defects like spina bifida</li> <li>- Destroyed in food by sunlight, excess heating and acidity</li> <li>- Depleted by antibiotics</li> </ul>
Vitamin C	<ul style="list-style-type: none"> <li>- Connective tissue</li> <li>- Protects against infection and shock by raising white blood cell count</li> <li>- Aids iron absorption</li> <li>- Promotes healing after delivery</li> <li>- Powerful antioxidant</li> </ul>	<ul style="list-style-type: none"> <li>- Carries oxygen to every cell</li> <li>- Builds strong immune system</li> <li>- Helps form good teeth, blood vessels</li> </ul>	Melon, citrus fruit, black currants, strawberries, carrots, peas, spinach, broccoli, tomatoes, green peppers	- Daily intake critical for sperm count, motility and health

Vitamin D	<ul style="list-style-type: none"> <li>- Good for teeth</li> <li>- Aids in calcium, Vitamin A and phosphorus absorption</li> <li>- Blood clotting</li> </ul>	<ul style="list-style-type: none"> <li>- Helps bones to harden and skull to develop</li> </ul>	<ul style="list-style-type: none"> <li>Sunlight on skin, oily fish, fish liver oils, eggs*, meats, dairy, sweet potatoes, cold pressed oils (flax, olive, safflower, evening primrose)</li> </ul>	<ul style="list-style-type: none"> <li>Levels reduced by insufficient sunlight</li> </ul>
Vitamin E	<ul style="list-style-type: none"> <li>- Wound healing after birth</li> <li>- Protects against stretch marks, anemia and varicose veins</li> <li>- Protects against aging</li> <li>- Important in blood clotting</li> </ul>	<ul style="list-style-type: none"> <li>- Protects against jaundice</li> <li>- Aids in formation of blood cells and heart</li> </ul>	<ul style="list-style-type: none"> <li>Wheat germ, nuts and seeds, avocados, green leafy vegetables, eggs*, brown rice, cold pressed oils (flax, olive, safflower, evening primrose)</li> </ul>	<ul style="list-style-type: none"> <li>- Deficiency can cause damage to reproductive tissues</li> <li>- Oils damaged and levels reduced by heavy processing, air, radiation, x-rays and light</li> </ul>
Vitamin F (Essential Fatty Acids)	<ul style="list-style-type: none"> <li>- Critical for absorption of vitamins, hormone function, healthy skin and blood clotting</li> <li>- Normalizes High Blood Pressure</li> </ul>	<ul style="list-style-type: none"> <li>- Required for growth, kidneys and brain development and sex and adrenal hormones</li> </ul>	<ul style="list-style-type: none"> <li>Oily fish, nuts and seeds, green leaf vegetables, cold pressed oils (flax, olive, safflower, evening primrose)</li> </ul>	<ul style="list-style-type: none"> <li>Oils damaged by air, radiation, x-rays, light and some by heat</li> </ul>
Vitamin K	<ul style="list-style-type: none"> <li>- Blood clotting</li> </ul>	<ul style="list-style-type: none"> <li>- Protects against hemorrhaging</li> </ul>	<ul style="list-style-type: none"> <li>Cauliflower, eggs*, green leafy vegetables</li> </ul>	

Minerals				
Calcium	<ul style="list-style-type: none"> <li>- Essential for healthy bones and teeth, blood clotting and nerve and muscle function</li> <li>- Retards increase in cholesterol and reduces triglycerides in the blood thus lowering blood pressure</li> <li>- In TCM* calcium's main function is for calming, and cooling</li> </ul>	<ul style="list-style-type: none"> <li>- Formation of health bones and teeth</li> </ul>	<ul style="list-style-type: none"> <li>Seaweeds, barley or wheat grass, carob, brazil nuts, almonds, walnuts, sunflower seeds, dried beans, tofu, dairy, green vegetables, dairy, fish with the bones (salmon, sardines), whole grains, shell fish, Calcium soup (barley and kale with fish or animal bones)</li> <li>- Dairy not best source*</li> </ul>	<ul style="list-style-type: none"> <li>- Silica (found in plant fibre)</li> <li>Magnesium, phosphorus and vitamins C, D and A essential for absorption</li> <li>- Levels reduced by lack of exercise and stress.</li> <li>- Pop, diuretics, too much protein, excess salt, excess Solanum Vegetables* all reduce Calcium levels</li> </ul>
Chromium	<ul style="list-style-type: none"> <li>-Regulation of blood sugar</li> <li>- Inhibits cholesterol formation in liver</li> </ul>	<ul style="list-style-type: none"> <li>-Regulation of blood sugar</li> </ul>	<ul style="list-style-type: none"> <li>Wheat germ, nutritional yeast, good honey, grapes and raisins, brown rice, molasses, egg yolks*, potatoes, cheese, dried beans, whole grains</li> </ul>	<ul style="list-style-type: none"> <li>Levels reduced by high carb/low protein diet</li> </ul>
Copper	<ul style="list-style-type: none"> <li>- Strong bones and nervous system</li> <li>- Iron absorption and red blood cell formation</li> </ul>	<ul style="list-style-type: none"> <li>- Aids in development of brain, connective tissue, nerves and bone formation</li> </ul>	<ul style="list-style-type: none"> <li>Meat, legumes, dates, nuts and seeds, raisins and seafood</li> </ul>	<ul style="list-style-type: none"> <li>High levels in female may lead to embryo toxicity, birth defects and post partum depression</li> </ul>
Iron	<ul style="list-style-type: none"> <li>- Critical for red blood cell formation, respiratory function and helps protect against fatigue, protein metabolism, stress and disease resistance</li> </ul>	<ul style="list-style-type: none"> <li>- Blood cells</li> <li>- Bone growth</li> </ul>	<ul style="list-style-type: none"> <li>Parsley, eggs*, meat, almonds, apricots, green leafy vegetables, molasses, legumes meat, fish, poultry whole grains, grapes, potatoes, prune juice</li> </ul>	<ul style="list-style-type: none"> <li>Levels reduced by excessive phosphorus, zinc, copper and tea</li> </ul>

Magnesium	<ul style="list-style-type: none"> <li>- Energy</li> <li>- Proper muscle function, especially labour contractions, blood sugar metabolism</li> </ul>	<ul style="list-style-type: none"> <li>- Development of heart, nervous system and skeleton system</li> </ul>	<ul style="list-style-type: none"> <li>- Seaweed, micro algae, wheat/barley, grasses, bran, Cashews, almonds, sesame seeds, green leafy vegetables, whole grains, seafood, honey, figs, kelp, dairy, tofu, wheat germ</li> </ul>	<ul style="list-style-type: none"> <li>- Essential for calcium absorption</li> <li>- Aides in muscle relaxation</li> </ul>
Manganese	<ul style="list-style-type: none"> <li>Proper enzyme function, fat metabolism, bone density, immune and nervous system function and reproduction and growth</li> </ul>	<ul style="list-style-type: none"> <li>-Bones and cartilage</li> <li>- Growth</li> </ul>	<ul style="list-style-type: none"> <li>Leafy green vegetables, onions, green beans, bananas, blueberries, avocados, pineapples, apples, egg yolks*, whole grains, nuts and seeds, peas and beets</li> </ul>	<ul style="list-style-type: none"> <li>Important for high sperm count</li> <li>Levels reduced by excessive calcium and soy protein</li> </ul>
Potassium	<ul style="list-style-type: none"> <li>- Essential for fluid balance, regulation of Ph in the body, nerve and heart function and hormone secretion</li> </ul>	<ul style="list-style-type: none"> <li>- Essential for fluid balance, regulation of Ph in the body and for rapid growth</li> </ul>	<ul style="list-style-type: none"> <li>Lean meats, whole grains, legumes, apricots, figs, dates, raisins, sunflower seeds, molasses,</li> </ul>	<ul style="list-style-type: none"> <li>Increases sperm motility</li> </ul>
Selenium			<ul style="list-style-type: none"> <li>- outer layers of grains, whole grains, brans and germs, broccoli, eggs*, onions, tomatoes</li> </ul>	<ul style="list-style-type: none"> <li>Essential for proper sperm production and functioning</li> </ul>
Zinc	<ul style="list-style-type: none"> <li>- Deficiency found with high copper levels.</li> <li>- Restoring correct levels essential for ovulation.</li> <li>- Extremely important for immune function, carb digestion and protein metabolism</li> </ul>	<ul style="list-style-type: none"> <li>- Low levels linked to genetic abnormality and low birth weight</li> <li>- Reproductive organ growth and development</li> </ul>	<ul style="list-style-type: none"> <li>Oyster, sesame, sunflower and pumpkin seeds, almonds, wheat and oat germ, sprouted seeds, ginger, fruit, leafy vegetables (esp. spinach and watercress), nutritional yeast, eggs, mushrooms, poultry (dark meat), soybeans</li> </ul>	<ul style="list-style-type: none"> <li>- Essential for sperm formation</li> <li>- Lost with each ejaculation</li> <li>- Most important supplement to take in preparation for pregnancy</li> <li>- Levels reduced by high calcium intake, lack of phosphorus and high copper levels</li> </ul>

Hazards			
stress	Cannot underestimate the negative effect on reproductive system functioning for men and women		
Smoking	<ul style="list-style-type: none"> <li>- Smokers are more likely to be infertile and take longer to conceive</li> <li>- Increases risk of cancer to both mother and baby</li> </ul>	<ul style="list-style-type: none"> <li>- Small increase in spontaneous abortion, bleeding during pregnancy and development of placental abnormalities</li> <li>- Reduced birth weight, negatively impacts mental development</li> </ul>	<p>Low birth weights can lead to reduced resistance to infection, impaired intelligence, shorter attention span, hyperactive behaviour, increased susceptibility to disorders of nervous, respiratory system, bladder, kidneys and skin</p>
Alcohol	<p>Reduces absorption of B6, iron and zinc Raises blood pressure</p>	<p>Increases risk of birth defects and miscarriage</p> <ul style="list-style-type: none"> <li>- Even socially acceptable levels of alcohol consumption lead to children with poorer verbal and understanding skills</li> </ul>	<p>Damages sperm First 20 weeks of fetal growth most susceptible to alcohol damage Women should avoid in conception period too.</p>
Caffeine	<ul style="list-style-type: none"> <li>- Excess coffee and tea can be a contributing factor in constipation</li> </ul>		<p>Spontaneous abortion, premature birth and stillbirth more common when dads drink more than 1 –2 cups/day</p>
Drugs (Recreational, over the counter or prescribed)	<ul style="list-style-type: none"> <li>- Potential danger increased due to negative impact these substances have on nutritional status</li> </ul>	See Antagonistic substances list below	
Birth Control Pill	<ul style="list-style-type: none"> <li>- Lowers Zinc levels by raising Copper</li> <li>- Causes deficiencies in Vitamins B, B6, B2, folic acid and C</li> </ul>		<ul style="list-style-type: none"> <li>- Stop at least 3 – 6 months for trying to conceive</li> <li>- Weakens immune system so food allergies more likely</li> <li>- Affects liver function so body can not detoxify properly</li> </ul>

- Eggs laid by chickens that eat feed with no animal products, pesticides and antibiotics are more nutritious and are easily available at most supermarkets.
- Government set RDA are set at levels that prevent people from getting vitamin deficiencies and severe malnutrition
- Recent studies show that women need only 50 extra calories/day (less than 1 apple), it's the quality of food that is more important
- A lot of the nutrition from fruits, vegetables and grains comes from the skin and outer layers. The nutritional info above assumes that you are eating the skin and outer layers.
- Processed food also has many of the nutrients missing or levels reduced.
- TCM is Traditional Chinese Medicine.
- The Solanum vegetables are potatoes, tomatoes, bell peppers and eggplant.
- Dairy foods not always best source of nutrients because various levels of lactose intolerance are common.

### **Antagonistic Substances**

On top of the list of Hazardous substances in the chart above, below is a list of other major substances that impair the uptake of many vitamins and minerals:

, processed sugar, processed flour, cortisone, antibiotics, diuretics, laxatives, diarrhea, anti-depressants, food preservatives, heavy metals, pesticides, fertilizers

### **Bibliography**

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