



Fertility Specialists  
Medical Group, Inc.®

# 1<sup>st</sup> Trimester Pregnancy Guide

by Nesha Cruz, RN

## NUTRITION

The 1<sup>st</sup> trimester is an important time for the mother and fetus - it is the most formative and sensitive part of the pregnancy. A mother needs the proper nutrients not only for her own health, but also those necessary to support and nurture fetal growth.

**Prenatal Vitamin** (daily): Over-the-counter or prescription, usually contains folic acid and iron. (See below for recommended daily doses of each; if your prenatal vitamin does not contain the recommended daily dose, additional supplementation is recommended.)

**Vitamin B9 or “folic acid”** (0.8 to 1 mg or 800 to 1,000 mcg per day): Aids in/supports fetal brain development and prevents neural tube defects (an abnormal or malformation of the brain and spinal cord). The best sources of folic acid are green leafy vegetables, citrus fruits, beans, and peas. Adequate folic acid needs can also be met with prenatal vitamins or supplements.

**Iron** (30 to 60 mg per day): Lack of iron results in fatigue and a diminished immune system; daily intake doubles in comparison to non-pregnant women. The best sources of iron are red meats, chicken, and fish. Adequate iron needs can also be met with prenatal vitamins or supplements.

### DIETARY SOURCES OF IRON

<u>Food</u>	<u>Serving Size</u>	<u>(mg)</u>	<u>Food</u>	<u>Serving Size</u>	<u>(mg)</u>
Beef Liver	3 oz	7.5-12	Peanuts	½ cup	1.6
Turkey, dark	3 oz	2	Prune juice	1 cup	10.5
Turkey, light	3 oz	2	Dried Apricots	½ cup	3.6
Haddock or Cod	6 oz	1	Raisins	½ cup	2.5
Endive or Escarole	1 cup	1	Beet greens	½ cup	1.4
Peas	½ cup	1.4	Spinach	1 cup	1.7
Lima Beans	½ cup	2	Brussel Sprouts	1 cup	1.7
Lentils	½ cup	2.1	Blackstrap Molasses	1 tbsp	3.2
Soybeans	½ cup	2.5	Brewer’s yeast	1 tbsp	1.4
Sunflower seeds	½ cup	5.1	Whole Grain bread	1 slice	0.8
Almonds	½ cup	2.7	Wheat Germ	1 tbsp	0.5
Cashews	½ cup	2.6			

**Calcium** (1,000 to 1,500 mg per day): Aids in fetal bone/teeth formation as well as proper circulation, strong muscles, and nervous system. Calcium taken at the same time as iron can interfere with the absorption of iron; eating calcium-rich foods, taking calcium and iron supplements at different times, and spreading calcium intake out during the day in order to improve absorption is important. The best sources of calcium are milk and other dairy products, as well as collard or mustard greens, kale, broccoli, sardines, canned salmon, and American-made tofu. Adequate calcium needs can also be met with supplements.

**Dairy** (4 servings per day): The best sources of dairy are milk, non-fat or low-fat yogurt, cheese, cottage cheese, and soft and blue-veined cheeses as long as they have been pasteurized.

### DIETARY SOURCES OF CALCIUM

<u>Food</u>	<u>Serving Size</u>	<u>(mg)</u>	<u>Food</u>	<u>Serving Size</u>	<u>(mg)</u>
Milk (skim or low-fat)	1 cup	300	Chickpeas (canned)	1 cup	80
Plain yogurt (non-fat or low-fat)	1 cup	468	Black Beans (cooked)	1 cup	128
Ricotta cheese (part skim)	½ cup	335	Tofu (firm)	1 cup	177
Swiss cheese	1 oz	272	Almonds	¾ cup	300
Provolone cheese	1 oz	207	Orange, grapefruit, or apple juice (calcium-fortified)	8 oz	300
Mozzarella cheese	1 oz	207	Figs (dried)	5 medium	135
Cheddar cheese	1 oz	148	Orange	1 medium	58
Parmesan cheese	2 tbsp	138	Raisins	½ cup	38
Cottage cheese	½ cup	63	Apricots (dried)	½ cup	29
Sardines with bones (canned)	3 oz	324	Kale (fresh)	1 cup	102
Salmon with bones (canned)	3 oz	181	Mustard Greens	½ cup	99
Ocean Perch (broiled)	3 oz	117	Turnip Greens	1 cup	75
Blue Crab	3 oz	89	Bok Choy (fresh)	1 cup	74
*The FDA recommends that pregnant/nursing women avoid eating shark, swordfish, king mackerel, and tile fish as well as limit other fish intake to no more than 12 oz/week.			Broccoli (fresh)	1 cup	42
Egg	1	25	Rutabaga	½ cup	41
			Tortillas (flour)	2	106
			English muffin (plain)	1	99
			Corn muffin	1 large	95

**Vitamin A** (5,000 IU per day): Necessary for the formation of healthy skin, bone, and tissue growth. Recent research has implicated excessive amounts of Vitamin A as a potential cause of a variety of birth defects; daily requirements should be met through dietary means and prenatal vitamins rather than additional supplementation. The best sources of Vitamin A are milk, dark green vegetables, and deep yellow or orange fruits and vegetables.

**Vitamin C** (70 mg per day): Enhances the body’s absorption of iron and is important in immune function. The best sources of Vitamin C are citrus fruit, 100% fruit juices, melon, strawberries, tomatoes, green peppers, and cabbage.

**Vitamin D** (400 IU per day): Critical for the body’s use of calcium. Vitamin D is made in your skin when exposed to the sun. Be careful, though, as some women are more sensitive to the sun during pregnancy! General precautions to avoid sunburn should be taken. The best sources of Vitamin D are milk, butter, egg yolk, and liver.

**Protein** (71 g per day): Provides nourishment to the growing fetus, supplies energy, and helps build/repair body tissue. Due to higher risk of constipation associated with pregnancy, in conjunction with a high protein diet (3 servings per day), an adequate source of fiber and increasing fluid intake is important. Remember to avoid undercooked or raw meat (no sushi), raw eggs, and unpasteurized dairy products. If you rely on vegetable protein to meet all or part of your protein needs, two or more vegetables should be combined to provide a proper balance of essential amino acids. The best sources of protein are lean meat, fish, eggs, tofu, beans, peanut butter, sunflower seeds, whole grains, and dairy products. You can obtain balanced vegetable protein by combining beans or nuts with grains, or by combining one of these with dairy products or eggs.

**Fruits and Vegetables** (4 servings per day): Supply necessary vitamins, minerals, and fiber.

**Water** (8+ glasses or ½ your body weight in oz per day): Aids in digestion, flushes the body of waste products and toxins, minimizes/prevents: swelling, constipation, pre-term contractions/labor (prior to 36 weeks gestation).

**DIETARY PRECAUTIONS:**

**Eating safely:**

Food Type	Recommendation
<b>Fresh Fish</b> Shark, swordfish, king mackerel, tilefish, marlin, tuna steak, cold smoked fish and seafood  Farmed Salmon  Albacore “white” tuna  Shrimp, canned light tuna, canned or wild salmon, pollock, catfish	<b>DO NOT EAT</b>  Eat no more than once per month  Eat no more than once per week  Eat no more than twice per week
<b>Deli Meats and Smoked Fish</b> Deli meat spread “paté”  Hot dogs, lunch meat, deli meat, deli smoked fish  Canned smoked fish or meat spread	<b>DO NOT EAT</b>  Do not eat unless steaming hot  Eat no more than twice per week
<b>Meat – Beef, Chicken, Pork</b> Any meat that is raw or undercooked	<b>DO NOT EAT</b>
<b>Milk and Cheese</b> Unpasteurized milk; unpasteurized cheese: feta, brie, camembert, blue-veined, Mexican style “queso blanco” or “fresco”  Hard cheese, semi-soft cheeses: mozzarella, processed slices, cream cheese, cottage cheese, yogurt made with pasteurized milk  Pasteurized milk	<b>DO NOT EAT/DRINK</b>  Eat as desired, no restrictions  Drink as desired, no restrictions
<b>Eggs</b>	Do not eat raw or undercooked eggs. Egg Substitutes are safe, as they have been pasteurized.

**Caffeine** intake should be limited to no more than two servings per day. Caffeine can be found in coffee, tea, colas and some other soft drinks, as well as chocolate and may interfere with the absorption of Iron. Decaffeinated products may be a better choice if available. Specifically, water-processed decaffeinated products are best in order to reduce any other chemical influences on the fetus.

**NutraSweet and other artificial sweeteners** should be limited as much as possible, as there have not been enough long-term studies completed to prove their safety during pregnancy.

**WEIGHT GAIN**

During pregnancy, appropriate weight gain is important for both mother and baby. “Eating for two” does not mean eating twice as much! Pregnancy requires a 300 calorie increase compared to the woman’s pre-pregnancy intake. The Institute of Medicine’s (IOM) guidelines regarding weight gain illustrate the importance of individualized care and pre-pregnancy weight management counseling, as well as proper nutrition and lifestyle choices throughout the pregnancy. There are serious risks associated with poor nutrition and/or large babies: gestational diabetes, high blood pressure, cesarean section, birth injury to mother and baby, childhood obesity, etc.

While the guidelines listed below only address weight gain during pregnancy, it is equally important for women to understand that pregnancy is not the time to lose weight, either. Babies eat, drink, breathe, and absorb everything the mother does; therefore, proper nutrition and lifestyle choices are necessary and increase the mother's chances of maintaining her own health, delivering a healthy baby, and producing a good supply of milk should she choose to breastfeed.

Guidelines for pregnancy weight gain (based on a woman's BMI, body mass index, before becoming pregnant):

	<b>Single pregnancy:</b>	<b>Twin pregnancy:</b>
Underweight (BMI less than 18.5)	Gain 28-40 pounds	No guidelines available due to insufficient data
Normal weight (BMI 18.5 to 24.9)	Gain 25-35 pounds	Gain 37-54 pounds
Overweight (BMI 25 to 29.9)	Gain 15-25 pounds	Gain 31-50 pounds
Obese (BMI 30 or more)	Gain 11-20 pounds	Gain 25-42 pounds

The fetus itself only accounts for part of the weight gained during pregnancy: the mother's body must also increase production of blood, tissue, and other fluids necessary for fetal development. An "average" weight gain will break down as follows: baby (8 lbs), placenta (1 lb), amniotic fluid (1.5 lbs), breasts (3 lbs), uterus (2.5 lbs), and stored fat/protein, water retention, and increased blood volume (8 lbs).

## **NAUSEA/VOMITING**

Approximately 50% of all pregnant women experience nausea and vomiting between the 6<sup>th</sup> and 12<sup>th</sup> week of pregnancy. This has been associated with elevated hormone levels (estrogen and HCG), although there are many other possible causes for these symptoms. Listed below are a few proven guidelines shown to offer significant relief from the "morning sickness" associated with pregnancy. If you have severe, persistent nausea or vomiting, infrequent/dark yellow urine, go to Urgent Care or call your Primary Care Provider immediately. Dehydration, acidosis, malnutrition, and weight loss are dangerous to the mother and the fetus. Severe cases may require medication, IV fluids, vitamin supplementation, and/or hospitalization.

<b>Recommendations</b>	<b>AVOID</b>
<p><u>Food and drinks:</u> Eat frequent, small portions (at least 6 small meals daily) and maintain stable blood sugar throughout the day (low blood sugar can cause dizziness and nausea).</p> <ul style="list-style-type: none"> <li>• Eat a few crackers before getting out of bed in the morning, rest for 15 mins, then get up slowly (never lie down after eating).</li> <li>• Food ideas: salty (potato chips, pretzels, crackers), tart (pickles, lemonade), bland (brown rice, mushroom soup, peanut butter, mashed potatoes, oatmeal, gelatin, broth, bread, noodles, cereal), crunchy (celery, apple slices, nuts), sweet (fresh/dried fruit, hard candy, popsicles), high protein (eggs, cheese, nuts, meat), carbs (dry toast, honey, bananas, baked potatoes)</li> <li>• Take prenatal vitamins, supplements, and/or medications with food or just before bed (iron upsets the stomach)</li> <li>• Stay hydrated! Sip on milk or fruit shakes throughout the day. Clear, carbonated, non-caffeine beverages (ginger ale, sparkling water) promote the elimination of gas and soothe the digestive tract.</li> <li>• Cold foods and beverages are less nauseating than hot ones.</li> </ul>	<p>Avoid foods/smells that trigger or amplify nausea.</p> <p>Avoid spicy, fatty, fried foods if possible.</p> <p>Avoid drinking fluids during meals and immediately before and after meals.</p>
<p><u>Holistic/Natural Remedies:</u></p> <ul style="list-style-type: none"> <li>• Essential oils/Aromatherapy: spearmint, lemon, ginger, peppermint, fennel, lavender, wild yam root (1/2 to 1 tsp daily) <ul style="list-style-type: none"> <li>◦ Mix 1-2 drops with one ounce of carrier oil (fractionated coconut oil). Some oils can be directly ingested, diffused aromatically, or used topically as a massage oil or relaxing bath.</li> </ul> </li> <li>• Acupuncture or Acupressure "sea band" (wrist band)</li> </ul>	
<p><u>Medications/Supplements:</u></p> <ul style="list-style-type: none"> <li>• Vitamin B6 (do not exceed 200 mg per day), Vitamin B9 (folate/folic acid- 0.8 to 1 mg or 800-1000 mcg per day), Vitamin B12</li> <li>• Unisom (Diphenhydramine or Doxylamine succinate)</li> <li>• Diclegis (Doxylamine succinate and Pyridoxine hydrochloride)</li> </ul>	
<p><u>Other:</u></p> <ul style="list-style-type: none"> <li>• Get plenty of rest, take naps during the day, and utilize the support of friends or family.</li> <li>• Take deep breaths and get plenty of fresh air!</li> </ul>	<p>Avoid over-exertion, exhaustion, and warm/unventilated environments!</p>

## **LIFESTYLE PRECAUTIONS: Prevent problems before they occur!**

**Alcoholic beverages** during pregnancy are not recommended. There is no known safe amount to drink while pregnant. Alcohol consumption during pregnancy has been associated with birth defects, poor neurological coordination, mental retardation, and fetal growth problems.

**Tobacco use** is strongly discouraged and is the single most preventable cause of illness and death among mothers and infants. Smoking during pregnancy has been associated with smaller babies, low birth weight, and respiratory problems after delivery.

**Recreational drug use** (marijuana, cocaine, crack, etc.) has been associated with increased risk of spontaneous miscarriage, fetal growth problems, respiratory problems, birth defects, and fetal death.

Many **Vaccinations** during pregnancy are safe and recommended. It is important to speak with your Primary Care Provider about what vaccinations you may need.

**Exercise** during pregnancy is generally recommended for healthy women. In fact, pregnant women are encouraged to engage in 30 minutes of exercise per day. However, pregnancy is not a time to start a brand new, vigorous program to “get in shape.” Start out slowly, let your body set its own limits, and increase exercise at your own pace. If you are tired, become short of breath or dizzy, slow down. If it hurts, do not do it. During periods of increased activity, it is also important to increase water intake. Aerobic dancing, walking, swimming, regular yoga, stationary cycling, and stretching are all good forms of exercise during pregnancy. High impact or step aerobics, “hot” yoga, scuba diving, skiing, snowboarding, soccer, and other competitive team sports should generally be avoided.

**Comfort Measures for Resting:** Use pillows to find a comfortable position. You may sleep on your abdomen as long as that position is comfortable to you. During the second half of pregnancy, the recommended position for sleeping and resting is either on your right or left side in order to increase blood flow to your uterus. If you awaken and find yourself on your back, don't worry that you have harmed your baby! Simply reposition yourself on your side.

If you are planning to **Travel**, you should be able to do so until you are 35-36 weeks pregnant, as long as there have been no complications and a few precautions are taken. Talk with your Primary Care Provider about your destination as well as the quality of medical care available to you. Remember to always wear a seat belt with the lap portion below your abdomen in front of your hip bones. If you are going on a long trip by car, plan to stop every 2 hours to get up and walk around to improve leg circulation. If traveling by plane, walk around the cabin often. In addition, drink a lot of fluids to increase urinary output. Always ask for a copy of your OB records to take with you on extended trips during the second half of pregnancy.

**Hot Tubs and Saunas** are two sources of exposure to increased body temperature. High temperatures have been associated with an increased risk of neural tube defects such as spina bifida. Avoiding hot tubs and saunas, especially during the 1<sup>st</sup> trimester, is strongly recommended.

It is safe to have a **Teeth Cleaning** at your Dentist's office, as well as local anesthesia for dental repair work. It is important to notify your Dentist that you are pregnant and avoid nitrous oxide (“laughing gas”), teeth bleaching, and x-rays.

**Aesthetics:** Hair coloring or highlighting, nail care including artificial nails, facials, massage (avoid deep massage of the abdomen), waxing or electrolysis are all generally considered safe during pregnancy. Tanning is not recommended.

Some **Environmental and Workplace Hazards** can affect the health of your unborn baby. It is important to learn signs and symptoms, as well as how to limit exposure to hazardous materials and toxins. If you think you may have been exposed to **Radiation**, call your Primary Care Provider. **Routine Housework** is generally safe during pregnancy. It is strongly recommended that you wear waterproof gloves and properly ventilate the area when using cleaning products. **Household Painting** (with latex-based paint) should be safe during the 1<sup>st</sup> trimester, although it is recommended to have someone else do it. Be cautious of dust and paint fumes and properly ventilate the area when working on household projects. If you are remodeling an older home, it is recommended that you avoid lead-based paint, paint chips, and paint dust.

**Toxoplasmosis** is a disease that presents serious implications if contracted during pregnancy. It is associated with eye malformations, mental retardation, and other brain malformations. Pregnant women should refrain from handling soiled cat litter. Avoid contact with or wear gloves and a facemask when handling materials that are potentially contaminated with cat feces (garden soil, lawns, sandboxes, etc.) and thoroughly wash your hands when finished.

## **OVER-THE-COUNTER MEDICATIONS**

The chart below lists over-the-counter medications considered low risk for pregnant women when taken for the occasional mild illness. However, nothing is 100% safe for all women and any medications (prescription and over-the-counter) or supplements (dietary and herbal) used during pregnancy should be discussed with your physician or pharmacist. Medication use, safety, and risks during pregnancy and breastfeeding, is well documented at the Teratogen Registry at 1 (800) 532-3749 or visit [www.otispregnancy.org](http://www.otispregnancy.org), “a community program for the elimination of preventable birth defects.” The California Teratogen Information Service (CTIS) is a statewide program operated by the Department of Pediatrics at UCSD Medical Center, with satellite offices at UCLA and Stanford. They are part of a nationwide community known as the Organization of Teratology Information Services (OTIS). This service helps provide information about prescriptive and non-prescriptive drugs, street drugs, alcohol, chemicals, infectious diseases, and any other physical agents that may be harmful to an unborn child.

Problem/symptom	Safe to take	NOT SAFE TO TAKE
Heartburn, gas/bloating, upset stomach	<u>Heartburn</u> : Antacids (Maalox, Mylanta, Rolaids, Tums) <u>Gas/bloating</u> : Simethicone (Gas-X, Maalox Anti-Gas, Mylanta Gas, Mylicon)	
Cough or Cold	<u>Expectorant</u> : Guaifenesin (Hytuss, Mucinex, Naldecon, Senior EX, Robitussin) <u>Cough Suppressant</u> : Cough drops, Vicks VapoRub, honey mixed with lemon juice, saline nasal spray	Cold remedies that contain alcohol  Decongestants with pseudoephedrine or phenylalanine, which can affect blood flow to the placenta
Pain relief, headache, fever	Acetaminophen (Anacin Aspirin-free, Tylenol)	
Allergies	<u>Antihistamine</u> : Chlorpheniramine (Chlor-Trimeton) Loratadine (Alavert, Claritin, Tavist ND, Triaminic Allergchews) Diphenhydramine (Banophen, Benadryl, Diphenhist, Genahist)	
Constipation, hemorrhoids, diarrhea	<u>Constipation</u> : Stool softeners (Colace, Dulcolax, Maltsupex, Milk of Magnesia) <u>Hemorrhoids</u> : Creams (Anusol, Preparation H, Tucks) <u>Diarrhea</u> : Psyllium (Konsyl-D, Metamucil, Modane Bulk, Perdiem) Polycarbophil (Equalactin, Fiber-Lax, FiberNorm, Konsyl-Fiber, Mitrolan) Methylcellulose (Citrucel, Unifiber) Loperamide (Imodium, Kaopectate II, Maalox Anti-Diarrheal, Pepto Diarrhea Control)	
Yeast infection, athlete's foot, other fungal infections	Clotrimazole (Cruex, Gyne-Lotrimin 3, Lotrimin AF, Mycelex 7) Miconazole (Desenex, Femizol-M, Micatin, Monistat 3) Tioconazole (Monistat 1, Vagistat 1) Butoconazole (Femstat 3, Mycelex 3) Terbinafine (Lamisil AT) Butenafine (Lotrimin Ultra) Tolnaftate (Absorbine Athlete's Foot Cream, Absorbine Foot Care, Genaspor, Tinactin) Undecylenic Acid and derivatives (Cruex, Desenex, Fungi Cure, Tinacide)	Certain antifungal products may contain other agents not safe for pregnancy. Check labels carefully!
Insomnia	Diphenhydramine (Benadryl, Maximum Strength Unisom SleepGels, Nytol, Sominex) Doxylamine succinate (Unisom Nighttime Sleep-Aid)	
Itching	Hydrocortisone (Cortaid, Lanacort)	
Minor cuts/scrapes	Polysporin	

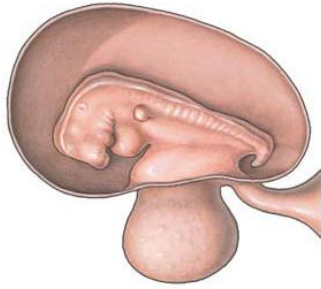
## **WARNING SIGNS** (bleeding, cramping, and other concerns)

Although these are not necessarily signs of a serious problem, please do not hesitate to call your Primary Care Provider if you have any questions regarding new symptoms you may be experiencing or are concerned about. They may be able to provide you with specific recommendations.

- Full flow vaginal bleeding (especially when accompanied by abdominal cramping) that occurs for more than 2 days in a row
  - **It is common to experience light vaginal spotting during pregnancy and is not usually a cause for concern**
- Abdominal pain or cramping
  - It is common to experience an intermittent “twinge,” tugging, or pulling sensation (referred to as “round ligament pain”) due to the expansion of the pelvic area
  - If pain becomes localized or persists longer than 30-60 minutes, call your Primary Care Provider
- Calf (leg) pain or swelling
- Chest pain
- Oral temperature (fever) over 102°
- Severe vomiting lasting more than 36 hours
- Diarrhea lasting more than 3 days
- Pain, burning, or bleeding with urination

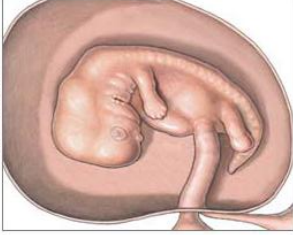
# FETAL DEVELOPMENT

3-5 weeks



**Day 1:** fertilization: all human chromosomes are present, unique human life begins.  
**Day 6:** embryo begins implantation in the uterus.  
**Day 22:** heart begins to beat with the child's own blood, often a different type than the mothers'.  
**Week 3:** By the end of third week the child's backbone spinal column and nervous system are forming. The liver, kidneys and intestines begin to take shape.

7-5 weeks



**Week 4:** By the end of week four the child is ten thousand times larger than the fertilized egg.  
**Week 5:** Eyes, legs, and hands begin to develop.  
**Week 6:** Brain waves are detectable; mouth and lips are present; fingernails are forming.  
**Week 7:** Eyelids, and toes form, nose distinct. The baby is kicking and swimming.

8-5 weeks



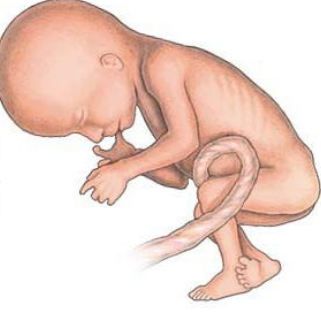
**Week 8:** Every organ is in place, bones begin to replace cartilage, and fingerprints begin to form. By the 8th week the baby can begin to hear.

10 weeks



**Weeks 9 and 10:** Teeth begin to form, fingernails develop. The baby can turn his head, and frown. The baby can hiccup.  
**Weeks 10 and 11:** The baby can "breathe" amniotic fluid and urinate.

12 weeks



**Week 11:** the baby can grasp objects placed in its hand; all organ systems are functioning. The baby has a skeletal structure, nerves, and circulation.  
**Week 12:** The baby has all of the parts necessary to experience pain, including nerves, spinal cord, and thalamus. Vocal cords are complete. The baby can suck its thumb.

16 weeks



**Week 14:** At this age, the heart pumps several quarts of blood through the body every day.  
**Week 15:** The baby has an adult's taste buds.  
**Month 4:** Bone Marrow is now beginning to form. The heart is pumping 25 quarts of blood a day. By the end of month 4 the baby will be 8-10 inches in length and will weigh up to half a pound.

24 weeks



**Week 17:** The baby can have dream (REM) sleep.  
**Week 19:** Babies can routinely be saved at 21 to 22 weeks after fertilization, and sometimes they can be saved even younger.  
**Week 20:** The earliest stage at which Partial birth abortions are performed. At 20 weeks the baby recognizes its' mothers voice.

28-26 weeks



**Months 5 and 6:** The baby practices breathing by inhaling amniotic fluid into its developing lungs. The baby will grasp at the umbilical cord when it feels it. Most mothers feel an increase in movement, kicking, and hiccups from the baby. Oil and sweat glands are now functioning. The baby is now twelve inches long or more, and weighs up to one and a half pounds.

32-30 weeks



**Months 7 through 9:** Eyeteeth are present. The baby opens and closes his eyes. The baby is using four of the five senses (vision, hearing, taste, and touch.) He knows the difference between waking and sleeping, and can relate to the moods of the mother. The baby's skin begins to thicken, and a layer of fat is produced and stored beneath the skin. Antibodies are built up, and the baby's heart begins to pump 300 gallons of blood per day. Approximately one week before the birth the baby stops growing, and "drops" usually head down into the pelvic cavity.

**References:**

<http://www.cdc.gov>

<http://www.acog.org>

<http://www.webmd.com/baby/guide/managing-morning-sickness.html>

<http://www.webmd.com/baby/news/20090528/pregnancy-weight-gain-new-guidelines>

<http://www.homemademedicine.com/home-remedies-morning-sickness.html>

[http://www.sogc.org/health/pregnancy-nausea\\_e.asp](http://www.sogc.org/health/pregnancy-nausea_e.asp)

[http://www.babycenter.com/0\\_chart-over-the-counter-medications-during-pregnancy](http://www.babycenter.com/0_chart-over-the-counter-medications-during-pregnancy)

<http://www.pregnancy-nutrition.knoji.com/recommended-nutrients-for-first-trimester-prenancy/>