

# Pregnancy Guide for the 1<sup>st</sup> Trimester (12 weeks)

This guide is intended to be a resource for you. It addresses common concerns and frequent questions in the first trimester of pregnancy. This information should not replace recommendations from your physician and is not intended to be a replacement for medical care.

The recommendations are based upon best practices and evidence endorsed by expert opinions as of May 25, 2023.

## VITAMINS

**Prenatal Vitamin (daily):** in the state of California, both over-the-counter and prescription contains the recommended amount of folic acid and iron, and other vitamins. (See below for recommended daily doses).

Prenatal vitamins can be a tablet, chewable or gummy vitamins. Take your vitamin with food or at night if it makes you nauseous.

**Folic Acid (Vitamin B9):** (400-800 mcg per day): 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, peas, and fortified cereal and bread. Adequate folic acid needs can also be met with prenatal vitamins or supplements. Some patients may need to take more folic acid 3 months prior to pregnancy to prevent defects of the brain and spine.

**Elemental Iron (30 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, spinach, collard greens, and iron-fortified foods. Adequate iron needs can also be met with prenatal vitamins or supplements.

**Vitamin A** Excessive amounts of Vitamin A may be a potential cause of a variety of birth defects; daily requirements should be met through dietary means and prenatal vitamins. Do not take additional supplementation. The best sources of Vitamin A are milk, dark green vegetables, and deep yellow or orange fruits and vegetables.

**Vitamin C** (80 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** (600 IU per day): Critical for the body's use of calcium. Vitamin D is made in your skin when exposed to the sun. The best sources of Vitamin D are milk, butter, egg yolk, and liver.

## NUTRITION

**Protein** (71 g per day): Provides nourishment to the growing fetus, supplies energy, and helps build/repair body tissue.

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.

**Fish:** 2-3 servings per week of low mercury content fish.

**Water** (8+ glasses or 1/2 your body weight in oz per day): Aids in digestion, prevents constipation and may help with headaches and nausea.

## DIETARY PRECAUTIONS:

### **Raw and Undercooked Fish**

- In line with current recommendations, pregnant women should generally avoid undercooked fish. However, sushi that was prepared in a clean and reputable establishment is unlikely to pose a risk to the pregnancy.

### **Other Foods to Avoid**

- Pregnant women should avoid raw and undercooked meat.
- Pregnant women should wash vegetables and fruit before eating them.

- Pregnant women should avoid unpasteurized dairy products.
- Unheated deli meats could also potentially increase the risk of Listeria, but the risk in recent years is uncertain.
- Pregnant women should avoid foods that are being recalled for possible Listeria contamination.

**Caffeine** intake should be limited to no more than 300 mg/day per day. (Equivalent of 16 ounces of coffee). 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.

**NutraSweet and other artificial sweeteners** are safe in pregnancy. Low consumption of saccharin is likely safe.

## WEIGHT GAIN

During pregnancy, appropriate weight gain is important for both mother and baby.

Pregnancy does require any additional calories in the first trimester. In the second trimester, an additional 340 calories per day are needed. In the third trimester, pregnant mothers need an extra 450 calories per day. Twin and triplet pregnancies require more calories. If you are pregnant with twins or triplets, please discuss your weight gain and daily calorie and vitamin needs with your obstetrician.

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 risks associated with excessive weight gain and/or large babies: gestational diabetes, high blood pressure, cesarean section, birth injury to mother and baby and childhood obesity.

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.

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                                |

## NAUSEA/VOMITING

Approximately 50% of all pregnant women experience nausea and vomiting that begins by the 9<sup>th</sup> week of pregnancy and usually ends before the 14<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, or 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.

### Recommendations

#### Food and drinks:

Eat frequent, small portions (at least 5- 6 small meals daily) and maintain stable blood sugar throughout the day (low blood sugar can cause dizziness and nausea).

- 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).
  - Eat frequent bites of food like nuts, fruits or crackers.)
  - Take prenatal vitamins, supplements, and/or medications with food or just before bed (iron upsets the stomach)
    - Stay hydrated
- Cold foods and beverages are less nauseating than hot

ones.

#### Holistic/Natural Remedies:

- Acupuncture or Acupressure “sea band” (wrist band)
  - Ginger capsules or candies
  - Ginger Ale and ginger tea
    - Preggie Pops

#### Medications/Supplements:

- Vitamin B6 (do not exceed 200 mg per day),
- Unisom (Diphenhydramine or Doxylamine succinate)
- Diclegis (Doxylamine succinate and Pyridoxine hydrochloride) or Bonjesta prescriptions

#### Other:

- Get plenty of rest, take naps during the day, and utilize the support of friends or family.
  - Take deep breaths and get plenty of fresh air!

## LIFESTYLE PRECAUTIONS

**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, fetal growth problems and intellectual disability.

**Tobacco use** is strongly discouraged and is a 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. It is associated with early separation of the placenta and can result in life threatening bleeding.

**Vaping** is not recommended.

**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. Marijuana use in pregnancy may cause stillbirth, small babies and learning and behavioral problems in children

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, surfing, horseback riding, snowboarding, soccer, and other competitive sports that involve contact or the risk of falls should generally be avoided.

**Sleeping position.** It is currently unknown whether, and at what gestational age, pregnant women should be advised to sleep on their side.

**Travel.** Airline travel is safe in pregnancy. There is no exact time in pregnancy when a women should not travel. However, rely on your provider’s advice regarding travel as long as there have been no complications. Consider infection risk and the quality of medical care at your destination prior to travel.

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 1-2 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. Avoiding hot tubs and saunas, especially during the 1<sup>st</sup> trimester, is strongly recommended.

**Dental work.** It is safe to have 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.

**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, intellectual disability, 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.

**Topical insect repellants** (DEET) are safe and can reduce the risk of Zika and West Nile virus.

## **Prescription Medications**

MotherToBaby, a service of the non-profit **Organization of Teratology Information Specialists (OTIS)**, is the nation’s leading authority and most trusted source of evidence-based information on the safety of medications and other exposures during pregnancy and while breastfeeding. Mother To Baby specializes in answering questions about the safety/risk of exposures, such as prescription and over the counter medications, vaccines, chemicals, herbal products, substances of abuse, maternal health conditions and much more, during pregnancy or breastfeeding. The no-cost

information service is available to mothers, health professionals, and the general public via chat, text, phone, and email in both English and Spanish. Mother To Baby can be contacted through the website or phone in both English and Spanish:

**Mothertobaby.org**

**1-866-626-6847**

**Do not stop prescription medications unless directed to do so by the prescribing doctor.**

## **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. All prescription medicines and herbal remedies and supplemental vitamins beyond prenatal vitamins used during pregnancy should be discussed with your physician.

### **Over-the-Counter Medications Safe to Take when Pregnant**



| Problem/symptom                        | Safe to take   | NOT SAFE TO TAKE   |
|--|--|--|
| Heartburn, gas/bloating, upset stomach | <u>Heartburn:</u><br>Antacids (Maalox, Mylanta, Rolaids, Tums)<br>H-2 Blocker (Pepcid)<br><br><u>Gas/bloating:</u> Simethicone (Gas-X, Maalox Anti-Gas, Mylanta Gas, Mylicon)                |  |
| Cough or Cold                          | <u>Expectorant:</u> Guaifenesin (Hytuss, Mucinex, Robitussin)<br><br><u>Cough Suppressant:</u><br>Cough drops, Vicks VapoRub, honey mixed with lemon juice,<br><br><u>Saline nasal spray</u> | Cold remedies that contain alcohol<br><br>Decongestants with pseudoephedrine or phenylalanine, which can affect blood flow to the placenta |
| Pain relief, headache, fever           | Acetaminophen (Tylenol)  | Ibuprofen<br>Aspirin unless directed by your MD  |
| Allergies                              | <u>Antihistamines:</u><br>Chlorpheniramine (Chlor-Trimeton)<br><u>Alavert</u> , Claritin, Zyrtec, Allegra<br>Diphenhydramine (Benadryl)<br><br><u>Nasal steroids</u> (Flonase)               |  |

|   |   |  |
|---|---|--|
| Constipation, hemorrhoids, diarrhea     | <p><u>Constipation:</u><br/>Stool softeners (Colace, Dulcolax, Milk of Magnesia, <u>Miralax</u>)</p> <p><u>Hemorrhoids:</u><br/>Creams including creams with steroids (<u>Anusol</u>, Preparation H, Tucks)</p> <p><u>Diarrhea:</u><br/>Psyllium (Metamucil, <u>Perdiem</u>)<br/>Polycarbophil (Fiber-Lax, <u>FiberNorm</u>, <u>Konsyl-Fiber</u>)<br/>Methylcellulose (Citrucel, <u>Unifiber</u>)<br/>Loperamide (Imodium, <u>Kaopectate II</u>, Maalox Anti-Diarrheal)</p> |  |
| Yeast infection: OTC vaginal treatments | <p>Clotrimazole<br/>Miconazole (Desenex, <u>Femizol-M</u>, Micatin, Monistat 3)<br/>Tioconazole<br/>Butoconazole</p>  | <p>Avoid prescription<br/>Diflucan</p> |
| Insomnia                                | <p>Diphenhydramine (Benadryl)<br/>Doxylamine succinate (Unisom Nighttime Sleep-Aid)</p>   |  |
| Itching                                 | <p>Hydrocortisone cream<br/>Oral Benadryl, <u>Claritin</u> or Zyrtec</p>  |  |

## 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 that cause concern. 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
- Soaking one pad per hour for more than two hours
- **It is common to experience light vaginal spotting during pregnancy and is not usually a cause for concern**
- Abdominal pain or cramping that is increasing
- 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 the pain becomes localized or persists longer than 30-60 minutes, call your Primary Care Provider

- Calf (leg) pain or swelling
- Chest pain
- Shortness of breath
- Loss of consciousness, fainting
- Oral temperature (fever) over 101.5° and not responding to Tylenol or lasting more than 24 hours
- Severe vomiting lasting more than 24 hours
- Diarrhea (loose stools more than 3 times per day)
- lasting more than 3 days
- Pain, burning, or bleeding with urination

## Resources:

acog.org (“For patients”)

mothertobaby.org

webmd.com

# 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 mother's.  
**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.



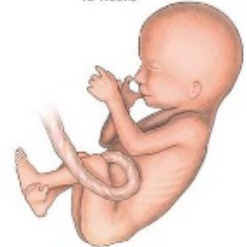
8.5 weeks

**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.



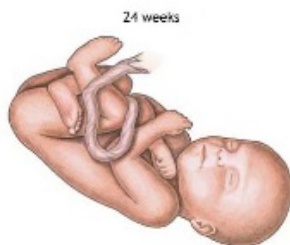
12 weeks

**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 2 1/2 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' mother's 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 hatching. 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. At approximately one week before the birth the baby stops growing, and "drops" usually head down into the pelvic cavity.

| Recommendations   | AVOID   |
|---|---|
| <p><u>Food and drinks:</u><br/> 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>• 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> </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>   |



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Updated on: May 25th, 2023