What is prenatal care?

This is the medical care a person gets during pregnancy. As part of your prenatal care, your provider will:

●Figure out when your baby is due

●Talk to you about nutrition, physical activity, work, and common pregnancy complaints, such as morning sickness, heartburn, and backache

●Talk to you about things to avoid, such as alcohol, smoking, and some drugs and chemicals

●Monitor your health to watch for problems

●Monitor your baby's health to check they are growing well

●Talk with you about pregnancy, labor, and delivery, and make a plan for your labor and delivery

●Talk with you about taking care of yourself and your baby after the birth

●Do tests to check you and your baby for different health conditions

What happens at my first prenatal visit?

Your provider will ask about your health and medical history, and figure out when your baby is due.

At your next visit, they will do an exam, including a pelvic exam.

They will also do tests that can include:

●Urine test

●Blood tests – Some blood tests check your general health. Other blood tests check for specific conditions that could cause problems for you or your baby.

●Lab tests on a sample of cells from your cervix – The doctor will use a swab to take some cells from your cervix. These cells can be tested for infections or cancer of the cervix.

●Ultrasound – This uses sound waves to create pictures of the inside of your body and of your baby. This is done to check your due date and see if you are pregnant with more than 1 baby.

What happens at each prenatal visit?

Your provider will:

●Ask about your symptoms, and answer any questions you have

●Check your blood pressure – Having high blood pressure can lead to problems, including a serious condition called "preeclampsia."

●Check your weight – The amount of weight you should gain during pregnancy depends partly on what your weight was before you got pregnant.

●Measure the size of your uterus (after 20 weeks)– Your uterus will get bigger as your pregnancy progresses.

●Listen for your baby's heartbeat – The provider will be able to hear your baby's heartbeat starting at about 12 weeks of pregnancy.

As you get further along in your pregnancy, the provider will:

●Ask about your baby's movements – People start feeling their baby move at different times. Most people feel their baby move by 20 to 25 weeks of pregnancy.

●Check your baby's position in your uterus – In the last 2 or 3 months of pregnancy, the provider will check your baby's position at each visit. They will check whether your baby's head or buttocks are presenting.

●Ask about symptoms of premature labor – In the last 2 or 3 months of pregnancy, the provider will ask you if you are feeling any contractions or are leaking fluid from your vagina. These can be signs of labor or your "water breaking."

What other tests are part of prenatal care?

Your provider will order other tests during your pregnancy. These include routine tests everyone gets during pregnancy. They also include tests some people choose to have.

Tests done during pregnancy include:

●Test to check for diabetes (high blood sugar) – This involves drinking a sugar drink and then having your blood drawn.

●Blood tests to check for certain conditions or infections – These include tests to check your blood type and see if you have a condition called anemia. They also include tests to check for infections you could pass to your baby or ones that could harm your baby. Some of these infections are rubella, hepatitis B, and syphilis.

●Ultrasound – This test checks your placenta, the fluid around your baby, how your baby is growing, and how your baby's organs are developing.

●Tests to check for certain problems babies can be born with – For example, you might choose to test your baby for Down syndrome. This is a lifelong condition that causes medical and learning problems. Another common test is to check for spina bifida, a problem that involves the spine (backbone). If a disease runs in your family, your provider can tell you whether your baby might be at risk.

●Tests on your vaginal or cervical discharge (the fluid that leaks from your vagina or cervix) to check for an infection

How often will I see my provider during pregnancy?

Your visits to your provider will probably get more frequent as your pregnancy progresses. Here is a common schedule of visits:

●Every 4 weeks until you are about 28 weeks pregnant

●Then, every 2 to 3 weeks until you are about 36 weeks pregnant

●Then, every week until delivery

Depending on your situation, your provider might recommend less frequent visits.

People with certain medical conditions (including conditions they had before they got pregnant) might need to see their provider more often. They might also need other tests to follow their medical condition during pregnancy.

PATIENT EDUCATION AND HEALTH PROMOTION

●Call the office if you experience: vaginal bleeding or change in vaginal discharge, leakage of fluid from the vagina, fever, pain, vomiting, acute shortness of breath, calf or leg pain, headache, visual changes, painful urination, itching throughout the body or on the palms of your hand or soles of your feet, uterine contractions, crampy abdominal pain, decreased fetal activity [after perception of fetal activity has become established], fainting or dizziness, or personal concern about a change in health status.

Diet, supplements, food safety, and weight gain

Vitamins and minerals

●**Multivitamins** – A standard prenatal multivitamin satisfies the daily vitamin and mineral requirements of most pregnant people. Although prenatal multivitamin use has not been proven to improve maternal and neonatal outcomes in high-income countries where people are typically well-nourished and food is vitamin-fortified, we believe it is prudent to recommend one prenatal multivitamin daily in the absence of a careful evaluation of a pregnant person's nutritional status or consultation with a nutritionist.

The two most important components of the multivitamin are iron and folic acid.

•If daily intake of a multivitamin containing 27 to 30 mg of elemental iron is poorly tolerated, a vitamin without iron plus intermittent oral iron supplementation (60 mg elemental iron one to three times per week) appears to be as or more effective than daily iron supplementation for preventing anemia at term and is better tolerated..)

•Folic acid 0.4 to 0.8 mg daily is recommended to reduce the risk of open neural tube defects during the period of neural tube closure and to support production of blood cells and fetal and placental growth throughout pregnancy.

●**Vitamin D** – Some experts advise high-dose vitamin D supplementation (eg, 2000 to 4000 international units/day) in addition to the Recommended Dietary Allowance for pregnant people whose children are deemed at high risk of developing asthma. Limited evidence suggests that this approach might reduce the risk of early life asthma/wheeze in the offspring. This evidence and recommendations for vitamin D intake when at least one parent has asthma.

Nutrition:

Making healthy food choices is important for your health. As your baby grows and changes during your pregnancy, it will take nutrients from your body. You will need to replace these nutrients to stay healthy and have all of the energy you need.

Food safety — General principles of food safety in pregnancy include the following :

●Wash fruits and vegetables before eating raw or cooking.

●Reheat hot dogs and luncheon meats/cold cuts/fermented or dry sausage, even though precooked.

●Avoid:

•Unpasteurized juice, cider, and milk (including soft cheese [eg, some Brie, Camembert, Roquefort, feta, queso blanco or queso fresco] and other products made with raw milk).

•Commercially premade meat or seafood salad (eg, deli chicken, ham, or tuna salad).

•Raw sprouts.

•Possibly contaminated water. (In the United States, public water drinking systems ensure safety using a combination of disinfection, coagulation, flocculation, sedimentation, and filtration.)

•Undercooked meat, poultry, fish, and eggs. Cook to the United States Department of Agriculture (USDA)-recommended minimum safe internal temperature.

•Refrigerated (ie, not canned or bottled) smoked seafood (which could be contaminated with listeria) unless it is in a cooked dish, such as a casserole.

•Refrigerated (ie, not canned or bottled) pâtés or meat spreads from a deli or meat counter.

•Raw dough.

•Caffeine intake >200 to 300 mg/day (usually equivalent to >3 cups/day).

•Consumption of fish with elevated levels of mercury. These include shark, swordfish, king mackerel, marlin, and tilefish (from the Gulf of Mexico). Mercury is a metal that can keep the baby's brain from developing normally.

You can eat types of fish and seafood that are very low in mercury. In fact, eating these kinds of fish is good for your baby's development, as long as you don't eat them too often. Each week, experts suggest eating:

●**2 to 3** servings of fish **very low** in mercury – These include shrimp, canned light tuna, salmon, pollock, and catfish.

or

●**1** serving of fish **low** in mercury – These include bluefish, grouper, halibut, mahi mahi, and yellowfin tuna. Tuna steaks are also OK to eat, but only 1 time a week.

Also:

●Wash cutting boards, dishes, counters, and utensils with hot, soapy water after contact with raw meat, poultry, seafood, or unwashed fruits or vegetables.

●Wash hands with soap and water before and after food preparation.

●Freezing meat for several days at subzero (0°F) temperatures before cooking greatly reduces the chance of infection.

Gestational weight gain — Recommendations for gestational weight gain are based on prepregnancy body mass index. In general, a person who is a healthy weight should gain 25 to 35 pounds during pregnancy. A person who has excess weight or obesity should gain less weight.

Pregnancy is a risk factor for excessive weight gain, which increases the risk of postpartum overweight or obesity. Both excessive weight gain and obesity have been associated with increased risks of gestational diabetes, cesarean birth, and macrosomia (big baby).

Healthy behaviors

Use of seat belts and air bags

●**Seat belts** – Pregnant people should continue wearing three-point seat belts when traveling in a motor vehicle. The lap belt is placed across the hips and below the uterus; the shoulder belt goes between the breasts and above and lateral to the uterus. Although there are case reports of maternal and fetal injuries resulting from seat belt use, the overall effect is that seat belts provide significantly more benefit than risk to the mother and fetus in the event of a motor vehicle crash.

●**Airbags** – In the United States, all cars manufactured after 1999 have an airbag safety system. Pregnancy alone is **not** a medical condition in which deactivation of automotive airbags may be allowed by state statutes. The American College of Obstetricians and Gynecologists (ACOG) suggests angling the steering wheel toward the breastbone, if possible, and maintaining 10 inches between the steering wheel and breastbone.

Oral health — Prevention, diagnosis, and treatment of oral conditions should not be deferred because of pregnancy. Dental radiographs (with shielding of the abdomen and thyroid) and procedures such as local anesthesia, dental extraction, root canal, restoration (amalgam or composite) of untreated caries, flossing, and scaling/root planing of plaque/biofilm do not have harmful fetal effects.

Oral Health Care During Pregnancy: A National Consensus Statement is a helpful online resource that provides information by an expert workgroup convened by the Health Resources and Services Administration (HRSA) in collaboration with ACOG and the American Dental Association (ADA).

Avoidance of alcohol, cigarettes, and misuse of drugs — Maternal alcohol consumption, smoking, or misuse of drugs can be harmful to the fetus as well as the mother. Pregnant people should stop using these substances. If you have a drug addiction we can refer you to a substitution program in the area.

Exercise and physical activity — For most pregnant people with uncomplicated pregnancies, the following exercise prescription is a reasonable goal and part of a healthy lifestyle: moderate-intensity exercise (able to carry on a normal conversation during exercise) that includes aerobic exercise and strength training, performed for 30 minutes daily, five to seven days per week.

Pelvic floor muscle exercises performed during pregnancy can decrease the short-term risk of urinary incontinence

Although widely believed to improve some pregnancy outcomes, there is no high quality evidence that bed rest reduces the risk of pregnancy loss, preterm birth, or preeclampsia or improves pregnancy outcome in multiple gestation or impaired fetal growth. Moreover, bed rest has known potential harms: It promotes loss of bone density, increases venous thromboembolism risk, produces musculoskeletal deconditioning, and places significant psychosocial strain on individuals and families.

Safe use of hot tubs, saunas, and swimming pools — Hot tubs and saunas should be avoided during the first trimester because maternal heat exposure that leads to hyperthermia has been associated with an increased risk of neural tube defects, and possibly other congenital anomalies. If used, exposure any time in pregnancy should be short so that core temperature does not increase.

Swimming is commonly recommended as an ideal exercise for pregnant people, although swimming pools contain microbes and potentially toxic chemicals, such as disinfection products. The effects of these chemicals on pregnancy have not been studied extensively, but significant harm has not been reported .

Precautions against infection — Some infections are potentially harmful in pregnancy and interventions should be taken to minimize the risk of these infections. In general, pregnant people should avoid contact with people with febrile illnesses that could be infectious and should practice good personal hygiene.

Immunization — Four vaccines routinely administered in pregnancy are:

●**COVID-19** – Pregnant people should be up to date regarding COVID-19 vaccination, in part because pregnancy itself is associated with an increased risk of severe infection. There are increasingly reassuring data regarding the safety of COVID-19 vaccines in pregnancy and their efficacy for preventing severe maternal SARS-CoV-2 infection and its obstetric consequences and protecting infants of vaccinated mothers.

●**Influenza** – Influenza vaccination is recommended for individuals who are or will be pregnant during the influenza season, regardless of stage of pregnancy. Vaccination is ideally performed during September or October. However, for pregnant patients who are in the third trimester in July or August, vaccination before September can be considered to reduce the risk of delivery before passive protection of the infant is achieved.

●**Tetanus, diphtheria, pertussis** – Tetanus and diphtheria immunizations and boosters should be up-to-date. The tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine is administered in the third trimester of each pregnancy to protect the infant from pertussis, regardless of prior maternal vaccination

●**Respiratory syncytial virus (RSV)** – Protecting the infant against RSV is recommended. A single dose of the RSVpreF vaccine is an option for patients between 32+0 and 36+6 weeks of gestation during RSV season (September through January in continental United States) who are not planning delivery within two weeks and who have not been previously vaccinated . Vaccination during pregnancy prevents severe RSV related lower respiratory tract disease (bronchiolitis) in infants from birth through 6 months of age. Vaccination appears to be safe but there is uncertainty regarding a slightly increased risk of preterm birth, which has been reported by some trials but not others. The data are insufficient to confirm this risk or establish or exclude a causal relationship. Nirsevimab is a monoclonal antibody that can be given postnatally to infants for prevention of RSV and is another option. Some informed patients may reasonably choose to forego RSV vaccination during pregnancy and instead plan on postnatal administration of nirsevimab to the infant. Insurance coverage of one approach versus the other and limited supply of the monoclonal antibody for newborns may be factors in decision-making.

Preventive measures for other infections — Preventing acquisition of most infections is based on consistent use of good personal infection control practices throughout pregnancy.

●**Sexually transmitted infections** – Since there is no need for contraception in pregnancy, many pregnant people do not consider using condoms during sexual activity. For patients who may be at high risk of exposure to sexually transmitted infections, we recommend condom use in pregnancy to reduce this risk.

●**Toxoplasmosis** – Prevention of primary infection is based on avoidance of sources of infection, which include ingestion of contaminated, undercooked, or cured meat or meat products; soil-contaminated fruits or vegetables; or contaminated unfiltered water. Individuals planning pregnancy or who are pregnant should avoid accidental contact with cat feces through touching hands to mouth after gardening, handling cats, cleaning a cat's litter box, or touching anything that has come into contact with cat feces. Routine screening is performed in some countries, but not in the United States.

●**Cytomegalovirus** – Prevention of primary cytomegalovirus (CMV) infections is based on good personal hygiene throughout pregnancy, especially hand washing with soap and water after contact with diapers or oral and nasal secretions (particularly with a child who is in daycare), not kissing children under age 6 on the mouth or cheek; not sharing food, drinks, or oral utensils with young children; and cleaning toys, countertops, and other surfaces that come into contact with children's urine or saliva. Screening is not performed routinely.

●**Varicella** – Prevention is based on prepregnancy immunization and avoidance of significant exposure to varicella infection, which is highly contagious. The United States Advisory Committee on Immunization Practices recommends VariZIG, a varicella-zoster immune globulin preparation, for all nonimmune pregnant people who have been exposed to persons with varicella infection.

●**Parvovirus** – Young children are the main source of respiratory-acquired parvovirus B19. The best measures to prevent maternal infection are good personal infection control practices, such as hand hygiene; not touching the eyes, mouth, or nose; avoiding close contact with sick individuals; and teaching children to cover their mouth and nose with an elbow or tissue when sneezing or coughing. Many pregnant people have preexisting immunoglobulin G (IgG) to the virus, indicating immunity from a prior infection; those who are exposed to or have symptoms of parvovirus infection should have serologic testing for IgG and IgM antibodies, and if acutely infected, they should be monitored for fetal effects.

●**Zika virus** – Given an association between Zika virus exposure during pregnancy and congenital microcephaly, pregnant people are advised to consider postponing travel to areas with ongoing mosquito transmission of Zika virus. Those who must travel are advised to take precautions against mosquito bites, including wearing long-sleeved shirts and pants, staying in places with air conditioning, sleeping under a mosquito net, and using an approved insect repellant. In addition, pregnant people whose sexual partner has traveled to affected regions should abstain from sexual activity (vaginal, anal, and oral sex) or use condoms for the duration of the pregnancy.

●**Listeria and other foodborne infections** – To reduce the risk of foodborne illness, pregnant people should practice good personal hygiene (frequent hand washing); consume only meats, fish, and poultry (including eggs) that are fully cooked; avoid unpasteurized dairy products and fruit/vegetable juices; thoroughly rinse fresh fruits and vegetables under running water (approximately 30 seconds) before eating; avoid eating raw sprouts (including alfalfa, clover, radish, and mung bean); and wash hands, food preparation surfaces, cutting boards, dishes, and utensils that come into contact with raw meat, poultry, or fish using hot, soapy water.

Sleep position — Pregnant people tend to avoid the supine position when awake because of associated symptoms, but it appears that many spend some time sleeping supine.

A large prospective multicenter cohort study evaluating maternal sleep position and subsequent adverse pregnancy outcomes reported that pregnant people whose objectively measured sleep position was supine at least 50 percent of the time at 22 to 30 weeks were not significantly more likely to have adverse outcomes than those in the supine position ≤50 percent of the time, which should reassure pregnant people that they can sleep in the positions in which they are most comfortable.

Intimate partner violence — Intimate partner violence may escalate during pregnancy or the postpartum period. Inform your clinician if you are a victim of partner violence or if you do not feel safe at home.

Common patient concerns

Risk of congenital anomalies and inherited disorders — The prevalence of congenital anomalies of medical, surgical, or cosmetic significance is 2 to 4 percent among liveborn infants. Both genetic and environmental factors play roles in pathogenesis. Ask your provider about screening and genetic tests that are available for you.

Employment issues — An individual with an uncomplicated pregnancy who is employed where there are no greater potential hazards than those encountered in routine daily life may continue to work without interruption until the onset of labor.

Sexual activity — Most studies have shown no increased risk of preterm labor/birth or infectious complications associated with sexual activity, unless a sexually transmitted infection is acquired. In the absence of pregnancy complications (including but not limited to vaginal bleeding, ruptured membranes, preterm cervical dilation/effacement), there is insufficient evidence to recommend against sexual intercourse during pregnancy.

Travel — Pregnant people who travel need to consider several issues and attempt to mitigate risks, when possible. These issues include:

●The risk of pregnancy complications away from their usual source of medical care, as well as the availability of medical resources and their medical insurance coverage at their destination.

●The increased risk of venous thromboembolism during pregnancy, which may be further increased with prolonged immobility during the trip.

●The numerous issues related to air travel (eg, access to medical providers, lower oxygen environment, restricted movement).

●The potentially increased risk of exposure to infectious diseases (eg, travelers' diarrhea, malaria, SARS-CoV-2), as well as prophylaxis, prevention, and treatment of these diseases.

Airline travel — Most airlines allow pregnant people to fly up to 37 weeks of gestation with singleton pregnancies and up to 32 weeks with twin pregnancies, although individual policies may vary, so individuals should check with their airline. Commercial airline travel is generally safe for pregnant people with uncomplicated pregnancies. Fetal heart rate is not affected during the flight if the mother and fetus are healthy.

Pregnant people should wear seat belts continuously to protect against injury from unexpected turbulence.

Pregnant people with medically or obstetrically complicated pregnancies that may be exacerbated by flight conditions or require emergency care should avoid air travel.

Hair dyes and other cosmetic products — Exposure to hair dyes or hair grooming/styling products results in very limited systemic absorption unless the integrity of scalp skin is compromised by disease. Therefore, these chemicals are unlikely to cause adverse fetal effects in pregnant people with a normal.

Plant-based hair dyes are probably safe and there is no information on whether non-ammonia versus ammonia-based products are safer. A prudent approach is to avoid ammonia- and peroxide-based products, given the wide availability of non-ammonia-

based products. Patients should use these products in a well-ventilated area since those with asthma/allergies may be more sensitive to the scents during pregnancy. Lastly, it is prudent for all pregnant people to avoid using new products since skin sensitivity is more common in pregnancy.

There are also only limited data on the safety of cosmetics. As above, skin may be more sensitive in pregnancy. Some nail polishes have toluene, formaldehyde, and dibutyl phthalate. Theoretically, these toxins may be inhaled when applied or absorbed from the nail bed. If used, it is prudent to apply nail polish in a well-ventilated place.

Shortness of breath — Pregnancy is a state of relative hyperventilation, which appears to be centrally mediated through progesterone. The respiratory rate does not change while tidal volume increases, resulting in an approximately 50 percent increase in minute ventilation, which accounts for the feeling of shortness of breath. Physiologic dyspnea of pregnancy has a gradual onset: Sudden onset or presence of cough, wheezing, rales, chest pain, fever, or hemoptysis suggests a pathologic process that requires further evaluation.

Use of insect repellants — The US Centers for Disease Control and Prevention (CDC) has advised pregnant people to take precautions to reduce their risk of acquiring arboviral infections (eg, Zika virus, West Nile virus, malaria) by avoiding mosquito bites through use of protective clothing (including permethrin-treated) and DEET (N,N-diethyl-3-methylbenzamide)-based repellents. Topically applied DEET does not pose hazards to the developing fetus, regardless of gestational age.

Tattoos and body piercing — Pregnant people should avoid getting a tattoo during pregnancy but can be reassured of the absence of proven pregnancy risks if the procedure is performed before they are aware of their pregnancy. Piercing of the oral-nasal airway, nipple, navel, and genitalia are problematic areas in pregnant people; jewelry at these sites may need to be removed for labor, birth, and breastfeeding.

Management of common discomforts

Nausea and vomiting — Almost all pregnant people experience nausea with or without vomiting in early pregnancy, and a minority experience the severe end of the spectrum, hyperemesis gravidarum. Behavioral changes and medication are effective for most patients. Discuss these symptoms with your provider.

Gastroesophageal reflux disease — Gastroesophageal reflux disease (GERD) affects 40 to 85 percent of pregnant people. Initial management consists of lifestyle and dietary modification (eg, elevation of the head end of the bed, avoiding dietary triggers). In patients with persistent symptoms, pharmacologic therapy should begin with antacids, alginates, or sucralfate. Discuss these symptoms with your provider if these measures are ineffective.

Constipation — The prevalence of constipation ranges from 16 to 39 percent in each trimester of pregnancy and 6 to 12 weeks postpartum. Constipation is common in pregnancy because of hormonal factors (eg, progesterone slows gastrointestinal motility) and mechanical factors (eg, pressure of the gravid uterus on the colon). Iron in prenatal vitamins, reduced physical activity, and other factors may also play roles.

Increasing dietary fiber and fluids or using bulk-forming laxatives are the preferred treatments since these agents are not absorbed. For refractory cases, occasional use of magnesium hydroxide, lactulose, bisacodyl, or polyethylene glycol is probably not harmful since magnesium salts have been widely used in pregnancy with a good safety profile and lactulose, bisacodyl, and polyethylene glycol, although not well-studied in human pregnancy, are minimally absorbed [64]. Castor oil can stimulate uterine contractions, and excessive use of mineral oil can interfere with absorption of fat-soluble vitamins, so these agents are generally avoided.

Hemorrhoids — Approximately 30 to 40 percent of pregnant/postpartum individuals are affected by hemorrhoidal discomfort. Treatment during pregnancy is primarily conservative with emphasis on dietary and lifestyle modification and the use of mild laxatives and stool softeners to avoid constipation.

Nasal congestion and epistaxis

●**Congestion** – Twenty to 30 percent of pregnant people develop symptomatic nasal congestion during pregnancy, a condition called pregnancy rhinitis (or rhinitis of pregnancy), which is hormonally-mediated and has no known allergic cause. It completely resolves within two weeks after giving birth. Pregnancy rhinitis does not require therapy, nor does it respond well to medications.

Allergic rhinitis is usually pre-existing, although it may develop or be initially recognized during pregnancy. Patients with allergic rhinitis often report prominent sneezing, nasal pruritus, and watery rhinorrhea, and some have concomitant ocular itching and irritation (allergic conjunctivitis). Discuss these symptoms with your provider as there are safe medications that you can use.

●**Epistaxis** – Pregnant people also often experience epistaxis, possibly as a result of hormonally-mediated hyperemia of the nasal mucosa. Management is the same as in nonpregnant people.

Gingivitis — Most pregnant people note gingival changes and/or gingivitis. These changes consist of enlargement and blunting of the interdigital papillae, which may result in gingival bleeding, ulceration, and pain. In addition to good oral hygiene, therapy for pregnancy gingivitis involves debridement and possibly adjunctive antibiotics.

Urinary frequency and nocturia — Urinary frequency (voiding >7 times per day) and nocturia (voiding ≥2 times at night) are among the most common pregnancy-related bothersome symptoms, affecting 80 to 95 percent of pregnant people at some point during gestation. Frequency appears to be due in part to changes in bladder function and in part to a small increase in urine output. Urinary frequency typically begins in the first trimester; thus, mechanical compression of the bladder by the enlarged uterus is not likely to be the primary cause. Nocturia is common and increases with advancing gestation, which may be partially attributable to nocturnal mobilization of dependent edema. Supportive care includes avoiding caffeine and avoiding consumption of fluids two to three hours before bedtime.

Difficulty sleeping — Poor sleep quality is common in pregnancy. Sleep during pregnancy, especially late pregnancy, is fragmented and characterized by increased waking after sleep onset, greater amounts of light sleep, and less deep sleep. Some reasons for this include nocturia, nocturnal gastroesophageal reflux, anxiety, restless legs or leg cramps, low back pain, physical limitations in achieving a comfortable position, and, primarily in pregnant people with obesity, obstructive sleep apnea.

●**Behavioral approaches** – In the absence of treatment for a specific medical condition, such as gastroesophageal reflux disease, suggestions for better sleep include maintaining a regular sleep schedule in a low stimuli environment; cutting down on the amount of liquids in the hours before bedtime; avoiding caffeine after noon; exercising regularly for at least 20 minutes at least a few hours before bedtime; placing pillows between the knees, under the abdomen, and behind the back to take pressure off the lower back; putting a night light in the bathroom to avoid turning on a bright light, which tends to increase

wakefulness; using relaxation techniques; avoiding naps late in the day; and using an eye-mask and earplugs. Patients with chronic insomnia may benefit from cognitive behavioral therapy for insomnia.

●**Pharmacotherapy –** We try to avoid prescribing sleep medication for pregnant people. If nonpharmacologic interventions have been unsuccessful and the patient requests pharmacologic therapy, we suggest melatonin as first-line drug treatment of sleep-onset insomnia in pregnancy. We inform patients that taking melatonin has not been associated with pregnancy, fetal, or newborn toxicity in humans; however, it freely crosses the placenta without alteration, maternal and fetal levels appear to be the same, and minimal data are available regarding pregnancy implications

Sedating antihistamines (eg, doxylamine, diphenhydramine) or zolpidem have been used for short-term treatment of sleeplessness in pregnancy.

Headache — Headache is a common problem in reproductive-age females. Some types of headache (eg, migraine) can become less symptomatic during pregnancy because they are affected by hormonal fluctuations, while others (eg, tension, cluster) are not affected by the pregnant state. Headache can be a symptom of preeclampsia with severe features.

Treatment depends on the type and frequency of headache. Pharmacotherapy can differ from that of nonpregnant individuals because some drugs have adverse fetal effects (eg, ergotamine is absolutely contraindicated during pregnancy, use of nonsteroidal anti-inflammatory drugs (NSAIDs) should be limited to <48 hours and avoided in the third trimester.

Back pain — Over 60 percent of pregnant people report back pain at some point during the gestation. It is usually due to mechanical factors resulting from altered posture, muscle weakness, joint laxity, and/or vertebral facet joint irritation. Rest, exercises, heat, cold, massage and physical therapy are all useful measures to decrease back pain.

Pelvic joint pain — Pregnancy-related painful pelvic joint conditions include pubic symphysis pain and/or separation, unilateral or bilateral sacroiliac joint pain, and pelvic girdle syndrome (pain in all three pelvic joints.) Rest, heat, cold, massage and physical therapy are useful measures to decrease pain.

L**eg cramps and restless legs syndrome** — Up to 50 percent of pregnant people experience leg cramps, especially in the third trimester, and up to 25 percent of pregnant people experience restless legs syndrome.

●If a leg cramp occurs, calf stretches (toe raises) as soon as the muscle cramp begins, walking, or leg jiggling followed by leg elevation may be helpful. Stretching exercises may be an effective preventive measure.

●Management of restless legs involves reassurance, nonpharmacologic interventions, and iron supplementation for most cases.

Peripheral edema — Water retention is a physiological phenomenon in pregnancy, with an average increase at term of 3 L. Water retention is clinically evident as edema of the ankles and legs, a normal finding in a large proportion of pregnant people near term

Interventions that may prevent or reduce edema include not standing for long periods of time, resting/sleeping on the left side, wearing support hose or graduated compression stockings, and water immersion. Diuretics are not used since edema is not harmful, the medications can have serious side effects (eg, hypokalemia), and there is concern that they may reduce uteroplacental perfusion when acutely administered.

Varicose veins — Pregnancy is a risk factor for developing varicose veins, which affect up to 40 percent of pregnant people and may become symptomatic any time during the antepartum or postpartum period. Graduated compression stockings do not prevent varicose veins, but they may relieve symptoms.

Diarrhea — Diarrhea is probably not more common in pregnancy. The management of patients with acute diarrhea initially involves general supportive measures such as hydration and alteration of diet. Loperamide was not teratogenic in animal studies, but human data are conflicting . Antibiotic therapy is rarely needed since the illness is usually self-limited.

SAFETY OF SELECTED COMMON MEDICATIONS USED TRANSIENTLY IN PREGNANCY

Limitations of available data — Medication use is common in pregnancy [84-89]. However, information about known or potential maternal or fetal adverse reactions and dose adjustments needed during pregnancy and the postpartum period is very limited because pregnant people are generally not included in studies to determine safety and efficacy of new medications.

It has been estimated that sufficient information to determine the risk for congenital anomalies is available for <10 percent of medications approved by the US Food and Drug Administration (FDA) since 1980.

General principles regarding medication use in pregnancy

●Avoid fetal drug exposure, when possible. Avoiding first-trimester use is most important since this is the major period of organogenesis, but fetal exposure to medication later in gestation can also result in subtle morphologic abnormalities, functional abnormalities, and growth impairment.

●Contact you provider with any medication concerns and before stopping a drug or starting a new drug (prescription, over-the-counter, or any alternative or complementary medicine [eg, herbal tea, traditional Chinese medicine].