## **Common Concerns and Problems During Pregnancy**

### I. Nausea/Vomiting

- A. Be reassured-it rarely lasts as Long as 16 weeks
- B. Eat small, frequent meals
- C. Try eating 1-2 soda crakers upon Awakening, 10-20 minutes before Getting out of bed
- D. Vitamin B6-50 mg, three times a Day
- E. Unisome-half to 1 tablet at bedtime
- F. Ginger tea
- G. Call if you cannot keep food or liquids Down after 2-3 days

## **II.** Constipation

- A. Diet high in fiber(raw fruits and Vegetables).
- B. Drink 6-8 glasses of water each day
- C. Over-the-counter stool softeners such As Colace, Metamucil, or Fibercon can Be used

## III. Colds

- A. Increase humidity (humidifier or Vaporizer), increase rest, and fluids
- B. Sore throat: Warm salt water gargles And throat lozenges are okay
- C. Coughs: Plain Robitussin for coughs
- D. For more severe symptoms, such as Chest tightness or difficulty breathing Call the office, we will work you in
- E. Over the counter Sudafed, Benadryl, Chlor-Trimeton, or Tylenol. Do not Take other over the counter meds unless You speak to an advice nurse first

### **IV. Exercise**

- A. Walk and stretch every day
- B. Avoid vigorous sports that require Good balance, sudden jerky movements Or bouncing
- C. Stop if you feel pain, fatigue, or spotting
- D. Check your prenatal book for exercises That are helpful for backache relief

### V. Vaginal Bleeding

- A. Many women have some vaginal bleeding, often causing no problems with the pregnancy. Others end in miscarriage. Most often this occurs early in the pregnancy, when you would either be having your period or ovulating
- B. Note the amount of spotting or bleeding(how often changing pads) and the color
- C. Note activity prior to the occurance
- D. See if resting (lying down with feet elevated) helps it to stop
- E. Report bleeding and cramping to the doctor
- F. If the cramping is severe, or bleeding is heavy,(changing maxi pad every hour or more) you need To go to the Emergency Room

### VI. Heartburn

- A. More common later in pregnancy
- B.. Avoid fatty foods, acidic foods, gas producing foods and large meals
- C. Antacids low in sodium are okay to use (Tums and Rolaids)
- D. Elevate head of bed at night (two pillows or mattress raised)

## VII. Headaches

- A. More common during 1<sup>st</sup> trimester
- B. DO NOT TAKE ASPRIN,NSAID (ibuprofen, Advil, Aleve, or Motrin)
- C. First try relaxation methods:baths massage, hot or cold packs,etc.
- D. Tylenol, plain or extra-strength
- E. If nothing helps, report to doctor

## **Common Discomforts During Pregnancy - Pregnancy Planner**

During pregnancy your body is going through many changes. These changes are triggered by hormones that prepare your body for pregnancy. These hormones can also cause many physical discomforts. Luckily, there are easy ways to relieve your pains.

**Backache** - Backache is one of the most common problems women face during pregnancy. The extra weight you are carrying causes a strain on your lower back muscles causing them to become stiff and sore. If you have a backache that refuses to go away or continues to get worse, call you doctor to be sure that this pain isn't caused by another health concern.

Some ways to lessen and relieve back pain:

- When picking up objects below waist level, use your legs instead of your back by bending your knees and keeping your back straight. Avoid heavy strain on your back by letting someone else pick up heavy objects. Also, keep objects within your reach so you don't have to strain yourself to grab them.
- Wear low heeled shoes. High heeled shoes tilt your body and put more strain on your back.
- Stay off your feet! If you have to sit for a long time, sit in a comfortable chair with good support on your back or put a pillow behind the small of your back. If you have to stand for long periods of time rest one foot on a stool while you lean your weight on the other to relieve pressure on your back.
- Sleep on your side with a pillow between your legs to support your back. Also, sleeping on a firm mattress will give your back more support than sleeping on a soft mattress. To firm up a soft mattress just have someone put a piece of plywood between the box spring and the mattress.
- Exercise to keep your back muscles stretched. Strengthen your back muscles by doing exercises and using good posture.
- Use an abdominal support garment to help take the weight of your belly off your back. Some maternity bottoms have built-in, thick elastics that ride below your belly to do the same thing.
- Use a heating pad, warm water bottle, or cold compress on your back to ease pain.

*Breast Tenderness* - As you body prepares itself for breastfeeding your breasts become larger and heavier. They most likely feel full and tender.

To help relieve breast discomforts:

- Wear a bra that fits well and has good support. A maternity bra, a bra built with extra wide shoulder straps, more coverage in the cups, and an extra row of hooks, is a good choice.
- Wear a supportive sleep bra to give you support while you sleep.

**Constipation and Gas** - During pregnancy you may get "backed up" from hormonal changes or from vitamin supplements. This can cause painful bloating and gas which may be exaggerated late in the pregnancy when the weight of your uterus begins to push on your rectum.

To reduce bloating and gas:

- Drink plenty of fluids to help flush out your digestive tract.
- Eat high fiber foods, including vegetables, whole grain bread, and bran cereal.
- Exercise to help your digestive system stay on track.

*Frequent Urination* - Frequent urination during pregnancy is caused by many influences. Your body is working hard to remove waste from your body. As your uterus grows it begins to press against your bladder and cause you to feel like you have to use the bathroom even if your bladder is almost empty. This may lessen in mid-pregnancy, as the uterus no longer rests on the bladder, but may begin again late in the pregnancy when the uterus drops into the pelvis. You may leak urine when you sneeze or cough due to pressure on your bladder. If this happens you can protect yourself by wearing panty shields or sanitary napkins.

To relieve frequent urination:

• Eliminate colas, coffee, and tea from your diet because caffeine makes you urinate more. Don't reduce the amount of fluids you drink, as this will rob you and your baby of vital fluids.

*Headache* - Headaches during pregnancy can be caused by hormonal changes, stress, increased hunger, fatigue, or even caffeine withdrawal. It is best to speak with your doctor before taking any drugs to relieve the pain.

Here are some drug-free tips to reduce headache pain:

- Rest in a dark quiet room.
- Place a cold face cloth on your forehead.
- Gently massage your temples, or have someone gently massage them for you.
- Get plenty of rest.
- Drink plenty of fluids.
- Eat small meals throughout the day to keep your blood sugar constant.

*Heartburn and Indigestion* - Heartburn, a feeling of burning in the throat and chest, and indigestion, a bloated and gassy feeling that happens when a stomach is slow to digest, may happen during pregnancy. There are many drug-free ways to help relieve symptoms and prevent heartburn and indigestion. Before taking antacids you should speak with your doctor.

To reduce your heartburn:

- Eat smaller meals, more frequently, rather than three large meals a day.
- Relax and eat slowly, chewing your food thoroughly.
- Stay away from foods that bother your stomach, including fried, greasy, and fatty foods. If heartburn is a problem, avoid fizzy drinks, citrus fruit, and fruit drinks.
- Don't lie down after eating and eat a few hours before bedtime. If heartburn is still a problem at night, try propping your head up against a pillow or elevate your head using a couple of books under the legs of your bed by your head.

*Hemorrhoids* - Hemorrhoids are painful, itchy varicose veins in the rectum. These can be caused by extra blood in your pelvic area and the pressure of your growing uterus on veins in the lower body. They may appear when you are constipated because straining bowel movements trap more blood in your veins. They may disappear only to return again during labor due to the strain of delivery.

Try these tips to help prevent hemorrhoids:

- Ward off constipation by drinking plenty of fluids and eating plenty of fiber.
- Keep your weight gain under control. Extra weight makes hemorrhoids more painful.
- Don't sit for long periods of time. Sitting puts pressure on the veins in your pelvic area.

To reduce the painful swelling of hemorrhoids:

- Soak them in water.
- Apply ice packs.
- Apply witch hazel pads.

*Insomnia* - Your growing belly may make it hard for you to find a comfortable position while sleeping. Also, the impact emotionally and physically of having a new baby may make it hard for you to fall asleep.

To help you relax and get a good night's sleep:

- Relax your mind and body in a warm bath or shower before bed.
- Learn relaxation exercises and breathing techniques.
- Limit your daytime sleeping.
- Sleep on your side with a pillow under your abdomen and another between your legs.

*Leg Cramps* - Leg cramps, especially at night, are a common discomfort during pregnancy, although the cause of them is uncertain.

To reduce cramping:

- Stretch your legs before going to bed
- Avoid pointing your toes when stretching or exercising

*Lower Abdominal Pains* - As your uterus grows, the ligaments that support it are pulled and stretched. This can cause dull or sharp pains on either side of your belly. These pains are most common between weeks 18 and 24. If these pains worsen or don't go away, call your health care provider.

To prevent or relieve pains:

- Avoid moving quickly, especially at the waist.
- Bend toward the pain to help relieve it.
- Rest or change your position.

*Nausea and Vomiting* - In the beginning of your pregnancy you may feel queasy by the smell of certain foods and have trouble keeping food down. This feeling, known as "morning sickness," can happen at any time during the day or night and may lessen by the middle of your pregnancy. This nausea and vomiting does not harm you or your baby if mild, but if it gets severe, you can't keep any foods or fluids down, and you begin to lose weight, you should see your health care provider.

To help relieve nausea and vomiting:

- Drink plenty of fluids to keep from dehydrating. Sweet, bubbly drinks may help you feel better.
- Eat more often to keep your stomach full.
- If you are nauseated when you wake up, keep crackers next to your bed to nibble on before getting up. Get out of bed slowly, sit and rest before standing up.
- Eat foods that are low-fat and easy to digest.
- Getting fresh air may help. Try taking a short walk outside or sleeping with a window open.

**Shortness of Breath** - The increase of progesterone early in pregnancy may leave you short of breath. Later in the pregnancy, your uterus grows larger and may press against your diaphragm, making it difficult to breath. You may feel short of breath but you are still getting adequate oxygen.

To help you breathe easier:

- Give your heart and lungs a break by moving slowly and taking it easy.
- Give your lungs more room to expand by sitting or standing up straight.

*Swelling* - Due to the increase in water in your body you may experience some swelling, known as edema, in your hands, feet, face and other body parts especially later in the pregnancy and during the summer. If you notice a sudden swelling of any body part you should contact your health care provider.

To relieve swelling:

- Sit with your feet up often.
- Sleep with your legs propped up on a pillow.

*Varicose Veins* - Varicose veins, blue bulges on your legs or in the lower body during pregnancy are caused by the weight and pressure of your growing uterus. There are no ways to prevent this, but you can reduce the swelling, soreness, and itching.

Following are suggestions to help reduce your risk of developing varicose veins:

- When sitting or standing for a long period of time be sure to move around and change you position once in awhile.
- Sit with your legs straight not crossed.
- Relieve pressure by putting your feet up on something such a chair, desk, or stool.
- Exercise.
- Wear support hose. Avoid wearing stockings that are tight around your legs.

### **Exercise During Pregnancy - Pregnancy Planner**

In any stage of your life, exercise is a part of a healthy lifestyle and pregnancy should not interfere with this. As busy as you may be, it is important for you to make the time to exercise. After all, research has shown that women who exercise while pregnant not only tend to have smoother pregnancies, but they may also experience easier labors, and feel better about themselves during pregnancy and after delivery.

Like many pregnant women, you probably wonder just how much exercise is safe, how you should do it, and at what intensities. As with all exercise programs, you should check with your own health care provider to be sure that there is no reason that you should not embark on or continue an exercise program.

### Exercise Guidelines

Here are some guidelines which should be followed for a safe and healthy exercise program for pregnant women:

- During pregnancy, woman can continue mild to moderate exercise routines. It is best to exercise regularly-at least three times per week.
- Non-weight-bearing exercise, such as cycling or swimming, may be the easiest to continue throughout pregnancy and may reduce the risk of injury. However, weight-bearing exercise, such as walking, may also be continued at close to your normal intensity level.
- After twenty weeks of pregnancy, avoid doing any exercise on your back, as this may decrease blood flow to the uterus.
- Avoid moderate exercise in hot, humid weather, or when you are sick with a fever.
- Wear comfortable clothing that will help you to remain cool.
- Wear a bra that fits you well and gives you plenty of support to help protect your breasts.
- Drink plenty of water to help keep you from overheating or dehydrating.
- Pregnant women need an additional 300 calories each day. Women who exercise during pregnancy should be especially careful to ensure adequate diet.

### Exercise Warning Signs

While exercising during pregnancy, listen to your body and signs it may be giving you. Stop exercising and call your health care provider if you experience any of these symptoms while exercising (note: call even if you experience these symptoms when not exercising):

- pain
- vaginal bleeding
- increased shortness of breath
- rapid heartbeat
- difficulty walking
- uterine contractions and/or chest pains
- fluid leaking from the vagina

### Northwest Women's Clinic

### Nausea/Vomiting

Be reassured-it rarely lasts as long as 16 weeks.

Eat small, frequent meals.

Try eating 1-2 soda crackers upon awakening, 10-20 minutes before getting out of bed.

Vitamin B6-50 mg. three times a day.

Unisom-half to 1 tablet at bedtime.

Ginger tea.

Call if you cannot keep food or liquids down after 2-3 days.

Try lemon slices or squeezed lemon to flavor water

### Constipation

Diet high in fiber (raw fruits and vegetables).

Drink 6-8 glasses of water each day.

Over-the-counter stool softeners such as Colace, Metamucil, or Fibercon (note: bulking agents such as Metamucil and Fibercon works well, but not immediately.)

\*Need to take on a daily basis for best results.

\*May cause increased gas at first so start with half dose and work your way up to a full dose per day.

### Colds

Increase humidity (humidifier or vaporizer), increase rest, and increase fluids. Sore throat: warm salt-water gargles and throat lozenges are ok.

Coughs: If after 8 weeks you can use plain Robitussin for coughs.

For more severe symptoms, such as chest tightness or difficulty breathing, call the office; we will work you in to be seen.

Over-the-counter Sudafed, Benadryl, Chlor-Trimeton after 8 weeks or Tylenol. Do not take other over-the-counter medications unless you speak to an advice nurse first.

### Exercise

Walk and stretch every day.

Avoid vigorous sports that require good balance, sudden jerky movements, or bouncing.

Stop if you feel pain, fatigue or have spotting.

Check your prenatal book for exercises that are helpful for backache relief.

### Vaginal Bleeding

Many women have some vaginal bleeding, often causing no problems with the pregnancy. Others end in miscarriage. Most often this occurs early in the pregnancy when you would either be having your period or ovulating.

Note the amount of spotting or bleeding (how often do you need to change pads) and the color.

Note activity prior to the occurrence.

See if resting (lying down or sitting with feet elevated) helps it to stop. Report bleeding and cramping to the doctor.

If the cramping is severe or bleeding is heavy (changing a large maxi pad every hour or more often) you need to go to the Emergency Room.

### Heartburn

More common later in pregnancy.

Avoid fatty foods, acidic foods (tomatoes or tomato sauces, orange juice), gas producing foods, and large meals.

Antacids low in sodium content are ok to use (Tums with meals and at bedtime). Elevate head of bed at night (two pillows or something under mattress).

### Headaches

More common during first trimester.

DO NOT TAKE ASPRIN OR NSAID (i.e. ibuprofen, Motrin, Aleve, Advil). First try relaxation methods: warm baths, massage, tension-reducing exercises, relaxation breathing, hot or cold packs to back of neck and shoulders.

If relaxation measures are not effective use Tylenol, plain or extra-strength.

Try taking Tylenol with a caffeinated beverage, ie coffee or tea

If nothing helps and the headache is severe or associated with vision problems report it to your doctor right away.





# \*General Outline of Prenatal Visits\*

- Week 6-8First visit with your provider: History, physical exam<br/>and lab tests.
- Week 12-28 See your provider every 4 weeks, routine weight, urine check, blood pressure, measure uterus, listen to fetal heartbeat.
- Week 28-36 See provider every 2 weeks.
- Week 36-40 See provider every week, start pelvic exams as needed.

• Initial chromosomal screening tests typically offered are; Cell-Free Fetal DNA testing for woman in higher risk categories and the Sequential Screening for those who are not.

•At week **20-22** an ultrasound will be done in our office. The purpose of this exam is to evaluate fetal anatomy. The most accurate time for this survey is at 20 weeks. You will be at that optimal time after

•Between weeks **26-28** a routine blood sugar test will be done to screen for diabetes.

•At week **28** if you are Rh negative you will also receive a Rhogam injection to protect your baby from Rh sensitization.

•At week **36** the doctor will collect a vaginal culture to screen for Group B Strep.

2222 NW Lovejoy, Ste. 619 Portland, OR 97210 Phone (503) 416-9922, Fax (503) 688-1871 11750 SW Barnes Rd, Ste. 300, Portland, OR 97225 Phone (503) 416-9922, Fax (503) 416-9971

## **<u>1 Hour Glucose Blood Draw Protocol</u>**

- 1. You have **5 minutes** in which to drink the drink. This means from start to finish.
- 2. You **MUST NOTE** the time you finished the drink.
- 3. We need to draw your blood **EXACTLY 1 hour** after you finish the drink. *Example: you started drinking at 8:00 am, you finished at 8:05 am; then, we need to draw your blood at 9:05 am exactly.*
- You are NOT required to FAST prior to consuming your Glucola drink.
   <u>However</u>, you are only allowed water between the time that you finish the drink until the completion of your blood draw 1 hour later.
- 5. Upon your arrival: please tell the front desk immediately that you are here for a glucose blood draw, and what time you finished drinking it.
- 6. Please allow a bit of time (10-20 minutes) for the lab to be busy, and <u>don't</u> arrive right at your hour when you need the blood drawn.

# If you have any questions, the front desk will direct you to the lab tech or your nurse.

## Heartburn, Gas, and Constipation

Hormonal imbalances during pregnancy may result in the softening of the smooth muscle found in the wall of the digestive tract. The consequent reduction in peristaltic movement causes food to pass more slowly through the esophagus, stomach, and small and large intestine to the rectum, inducing gas and constipation. Heartburn can be caused by the softening of the muscular valve between the esophagus and the stomach, so that partially digested, acidic food may leak back up into the esophagus, causing a burning sensation in the chest. Heartburn and constipation are generally ecperienced in the later stages of pregnancy.

Susan Weed and Rosemanry Gladstar emphasize eating small meals more frequently, chewing food carefully, and avoiding acid-causing and greasy foods. Both recommend papaya (espically raw, but also in tablets and papaya leaf) for the enzymes, fennel and anise seeds; Gladstar adds cumin and dill seed, suggesting an old-fashioned remedy for digestive disturbances: combine these four seeds and chew them before and after meals. Be aware that coffee and cigarettes increase heartburn by irritating the stomach, and remember that whole grains, fresh fruits, and vegetables combined with nonstressful exercise are the best solutions to constipation.

### Northwest Women's Clinic

Roberto M. deCastro, MD Robin W. Barrett, MD Michael W. Davis, MD Saramati J. Krishna, MD Rebecca A. Kyle, DO Kelley E. Burkett, MD Holly S. Spence, CNM Rhonda J. Chick, CNM Lydia M. Hammond, CNM Lisa Malmquist, CNM Tanell Ogbeide, CFNP

The following is a list of herbs that might upset fetal development or start uterine contractions.

Common name	Latin name	Common name	Latin name
Alder buckthorn	Rhamnus frangula	Ipecac	Ipecac ipecacuanha
Aloes	Aloe vera	Juniper berries	Juniperis communis
Angelica	Angelica archangelica	Licorice	Glycyrrhiza glabra
Arnica	Arnica montana	Lily of the valley	Convallaria majalis
Autumn crocus	Colchicum autumnale	Lobelia	Lobelia inflata
Barberry	Berberis vulgaris	Male fern	Dryopteris filix-mas
Bethroot	Trillium spp.	Mandrake	Podophyllum peltatum
Black cohosh	Cimicifuga racemosa	Mistletoe	Viscum album
Blessed thistle	Carbenia benedicta	Mugwort	Artemesia vulgare
Blood root	Sanguinaria canadensis	Nutmeg*	Carum petroselinum
Blue cohosh	Caulophyllum thalictroides	Pennyroyal	Mentha pulegium
Broom	Sarpthamnus scoparius	Periwinkle	Vinca spp.
Butternut	Juglans canadensis	Peruvian bark	Cinchona spp.
Calamus	Acorus calamus	Pleurisy root	Aesclepius tuberosa
Calendula	Calendula officinalis	Poke root	Phytolacca decandra
Cascara sagrada	Rhamnus purshiana	Rue	Ruta graveolens
Coltsfoot	Tussilago farfara	Rhubarb	Rheum palmatum
Cowslip	Primula veris	Sage*	Salvia officinalis
Damiana	Turnera aphrodisiaca	Sarsaparilla	Smilax officinale
Dong quai	Angelica sinensis	Senna	Cassia senna
Ephedra (Ma huang)	Ephedra vulgaris	Sheperd's purse	Capsella bursa-pastoris
Feverfew	Tanacetum parthenium	Stillingia	Stillingia sylvatica
Ginseng	Panax quinquefolium	Tansy	Tanacetum vulgare
Goat's rue	Galega officinalis	Thuja	Thuja occidentalis
Goldenseal	Hydrastis canadensis	Wormwood	Artemesia absinthinum
Gotu kola	Hydrocotyle asiatica	Yarrow	Achillea millefolium

\*Small amounts of nutmeg and sage used in cooking are okay.

*Note*: Some of the herbs listed above may be recommended by a licensed practitioner with expertise in the use of botanicals during pregnancy and labor.

### Mercury Levels in Fish

We know that fish can be very nutritious and are packed with great nutrients such as omega-3's, the B vitamins and lean protein. But unfortunately, fish can also have some unhealthy contaminants. Mercury is a contaminant found in fish that can affect brain development and the nervous system. The FDA has released guidelines for children, women who are pregnant and women who are trying to become pregnant. These guidelines state that no more than 12 oz of low mercury fish should be consumed weekly. "Highest" mercury fish should be avoided and "high" mercury fish should be kept to only three 6-oz servings per month.

What does this mean for women who are pregnant but also trying to get some of their much needed nutrients from the critters of the sea? It is all about **moderation**. Recent information released in the *American Journal of Preventive Medicine* says that no one should cut fish out of their diet altogether. Fish contains too many healthy nutrients that are essential for growth and development, especially in a pregnant mom and baby. There are 4 types of fish that should be on the list to avoid due to mercury levels. These include: shark, king mackerel, swordfish and tilefish.

For information regarding other types of fish, the Natural Resources Defense Council (NRDC) has released a list of fish and their mercury levels so that people can be informed on what they are consuming. If you want to get more detailed information about mercury levels and how much you personally are consuming, you can also use the mercury thermometer to calculate your totals.

### **Highest Mercury**

AVOID Eating

Grouper Marlin Orange roughy Tilefish Swordfish Shark Mackerel (king)

### **High Mercury**

Eat no more than three 6-oz servings per month

Sea Bass Croaker Halibut Bluefish Tuna (canned, white albacore) See tuna chart below Tuna (fresh bluefin, ahi) Sea Trout Lobster (American, Maine)

### LOWER MERCURY

Eat no more than six 6-oz servings per month

Carp Mahi Mahi Crab (dungness, snow, blue) Snapper Herring Cod (Alaskan) Monkfish Perch (freshwater) Skate Cod\* Tuna (canned, chunk light) Tuna (fresh pacific albacore)

### **LOWEST MERCURY**

Enjoy two 6-oz servings per week

Anchovies Butterfish Calamari (squid) Crab (king) Pollock Catfish Whitefish Perch (ocean) Scallops Flounder Haddock Hake Herring Lobster (spiny/rock) Shad (American) Shrimp Sole Crawfish/crayfish Salmon Shrimp Clams Tilapia Oysters Sardines Trout

Chart obtained from the Natural Resource Defense Council (NRDC); data obtained by the FDA and the EPA.

Tuna mercury levels can be different based on the type of tuna and where it was caught. The NRDC created the chart below as a guideline to how much tuna can be eaten by children, pregnant women or women wanting to conceive, based on their weight.

Weight in Pounds	Frequency a Person Can Safely F	
	White Albacore	Chunk Light
201bs	1 can/10 wks	1 can/3 wks
30lbs	1 can/6 wks	1 can/2 wks
401bs	1 can/5 weeks	1 can/11 days
501bs	1 can/4 weeks	1 can/9 days
601bs	1 can/3 weeks	1 can/7 days
701bs	1 can/3 weeks	1 can/6 days
801bs	1 can/2 weeks	1 can/ 6 days
901bs	1 can/2 weeks	1 can/5 days
1001bs	1 can/2 weeks	1 can/5 days
110lbs	1 can/12 days	1 can/4 days
120lbs	1 can/11 days	1 can/4 days
130lbs	1 can/10 days	1 can/4 days
140lbs	1 can/10 days	1 can/3 days
150lbs +	1 can/9 days	1 can/3 days

# Nausea and Vomiting of Pregnancy

Morning or evening nausea and vomiting, occurring during the first trimester of pregnancy

Many physical and psychological reasons have been suggested to explain the high incidence of nausea and vomiting during pregnancy (morning sickness). It has been estimated that fifty percent of women complain of these symptoms at some time during pregnancy. Considering the many hormonal and metabolic changes that occur during pregnancy, the existence of these symptoms is not surprising. However, emotional factors also play a role in the perception and severity of the nausea and vomiting.

### Therapeutic Considerations

The most popular treatment for nausea and vomiting during pregnancy is vitamin B6. This vitamin is extremely important in breaking down and eliminating the increased level of pregnancy-related hormones. In the medical literature prior to the 1990s, support for the use of vitamin B6 in treating the nausea and vomiting of pregnancy consisted primarily of several poorly designed studies in the 1940s. <sup>1,2</sup> In fact, in 1979 the American Medical Association Council on Drugs went so far as to say that "there was no solid evidence that vitamin B6 is effective against nausea." However, two very well-designed doubleblind studies in the 1990s appear to

provide the necessary support for this popular (and seemingly effective) recommendation to pregnant women. In the first study, fifty-nine women were randomly assigned to receive either 25 mg of vitamin B6 every eight hours or a placebo. After seventy-two hours, only eight of thirty-one B6-treated patients had nausea, compared to fifteen of twenty-eight in the placebo group.<sup>3</sup>

In the more recent double-blind study, 342 pregnant women (less than seventeen weeks pregnant) were randomized to receive either 30 mg or vitamin B6 or a placebo.<sup>4</sup> Patients graded the severity of their nausea and recorded the number of vomiting episodes over the previous twenty-four hours before treatment, and again during five consecutive days of treatment. Compared to the placebo group, there was a statistically significant reduction in nausea scores and vomiting episodes. Based on the results of this study, vitamin B6 was recommended as a first-line treatment for nausea and vomiting of pregnancy. However, although a positive effect was reported in the trial, the results were not all that impressive. More than one-third of the patients still experience vomiting significant nausea with and B6 supplementation. Perhaps a larger dosage would have been more effective. Or perhaps ginger (discussed later in this chapter) is better а

recommendation, alone or in combination with vitamin B6.

### Vitamins K and C

Vitamins K and C, when used together, have shown considerable clinical efficacy; ninety-one percent of patients in one study showed complete remission within seventy-two hours.<sup>5</sup> The mechanism for this effect is unknown, and both vitamins administered alone showed little effect.

### Ginger

Ginger (Zingiber officinale) has a long tradition of being very useful in alleviating symptoms of gastrointestinal distress, including the nausea and vomiting typical of pregnancy. Although the mechanism of action has yet to be elucidated, current thought is that this is due more to ginger's effects on the gastrointestinal tract than to any effects of the brain.<sup>6</sup>

Ginger's antivomiting action has been studied in the most severe form of pregnancy-related nausea and vomiting, known as hyperemesis gravidum. This condition usually requires hospitalization. In a double-blind trial, ginger root powder at a dose of 250 mg four times per day brought about a significant reduction in both the severity of the nausea and the number of attacks of vomiting in nineteen of twenty-seven women in early pregnancy (less than twenty weeks).<sup>7</sup> These clinical results, along with the safety of ginger, the relatively small dose of ginger required, and the problems associated with antivomiting drugs in pregnancy (e.g. severe birth defects) support the use of ginger to treat nausea and vomiting in pregnancy. This recommendation is becoming accepted even in orthodox obstetrical practices; ginger (as well as vitamin B6) is now often recommended as an effective treatment of early nausea and vomiting of pregnancy in many medical publications.

# QUICK REVIEW

- Vitamin B6 is very important in breaking down and eliminating the increased level of hormones during pregnancy.
- Vitamin B6 is very effective in most cases of nausea and vomiting of pregnancy.
- Ginger has a long tradition of being very useful in alleviating symptoms of gastrointestinal distress, including the

nausea and vomiting typical of pregnancy.

- Clinical studies have shown ginger to be effective even in the most severe form of nausea and vomiting of pregnancy.
- Many experts consider mild symptoms of nausea and vomiting of pregnancy as a good sign of a healthy pregnancy.

### **Psychological Aspects**

There appears to be general agreement among experts that mild symptoms of nausea and vomiting during the first trimester have a strong psychological basis (linked to hormone changes during pregnancy) and are predictive of positive pregnancy adjustment and outcome. In other words, many experts consider mild symptoms of nausea and vomiting of pregnancy as a good sign of a healthy pregnancy. More serious or longer-lasting symptoms are thought more likely to have a psychological component.<sup>8</sup>

A study of eighty-six pregnant

TREATMENT SUMMARY

### Diet

Eat dry toast immediately after rising, and small, frequent meals thoughout the day.

### **Nutritional Supplements**

- Vitamin B6: 25 mg two to three times per day
- Vitamin C: 250mg two to three times per day
- Vitamin K: 5 mg per day

### **Botanical Medicines**

There remain many questions concerning the best form of ginger and the proper dosage. Most research studies have utilized 1 gram of dry powdered ginger root – a relatively small dose. For example, ginger is women showed a significant increase in both nausea and vomiting during the first trimester among women who reported more unplanned, undesired pregnancies and negative relationships with their own mothers. Those whose problems continued into the third trimester were also significantly more negative in their assessments of their relationships with their mothers.<sup>9</sup>

We encourage pregnant women who have severe nausea and vomiting, or whose symptoms extend beyond the first trimester, to explore possible psychological factors. That is not to say that it is "all in the head," but rather to treat the whole person (body and mind.)

commonly consumed in India at a daily dose of 8 to 10 grams. Furthermore, although most studies have used powdered ginger root, fresh (or possibly freeze-dried) ginger root or extracts concentrated for gingerol at an equivalent dosage may yield even better results.

In the treatment of nausea and vomiting of pregnancy, a dosage of 1 to 2 grams of dry powdered ginger, possibly taken as a tea, may be effective. For ginger extracts standardized to contain 20% gingerol and shogaol, an equivalent dosage would be 100-200 mg.

### Counseling

Women who are having an unplanned or undesired pregnancy, or who have a poor relationship with their own mother, should consult a qualified counselor for assistance in resolving these conflicts.

### Acupressure

Acupressure refers to applying pressure to acupunture points. It may help relieve the nausea and vomiting of pregnancy. In one study, sixteen pregnant women with morning sickness were divided into two gourps. Group 1 used acupressure wristbands for five days, followed by five days without therapy. Women in Group 2 had no therapy for five days, followed by five days' use of wristbands. The extent of nausea was assessed at baseline, day five, and day ten. Use of acupressure wristbands (elastic wristbands with hardened plastic balls applied to acupunture sites on the wrist) relieved morning sickness for twelve of sixteen subjects. Acupressure therapy also resulted in statistically significant reductions in anxiety, depression, behavioral dysfunction, and nausea.<sup>10</sup> These acupuncture wristbands are available at most drug stores.

1 2 3 4 5 6 7 8 9

### **Round Ligament Pain during Pregnancy**

Many women will experience a type of pain referred to as "round ligament pain" during their pregnancy. This is associated with abdominal pain or discomfort. Since any type of abdominal pain during pregnancy can be disconcerting, it is important to talk about round ligament pain to relieve any anxiety or fears you may have regarding the symptoms you are feeling. Round ligament pain is due to normal changes that take place in the body during pregnancy. It is caused by stretching of the round ligaments attached to the uterus. More commonly it occurs on the right side of the pelvis.

### Round Ligament: An Overview

Typically in the non-pregnant state the uterus is about the size of an apple or pear. There are thick ligaments which hold the uterus in place in the abdomen, referred to as round ligaments.

During pregnancy, your uterus will expand in size and weight, and the ligaments supporting it will have to stretch, becoming longer and thinner. As these ligaments pull and tug they may irritate nearby nerve fibers, which causes pain. The severity of the pain in some cases can seem extreme.

Some common symptoms of round ligament pain include:

- Ligament spasms or contractions/cramps that trigger a sharp pain typically on the right side of the abdomen.
- Pain upon waking or suddenly rolling over in your sleep.
- Pain in the abdomen that is sharp brought on by exercise or other vigorous activity.

### **Similar Problems**

Round ligament pain is often mistaken for other medical conditions because the symptoms are similar. Acute abdominal pain during pregnancy may also be a sign of other conditions including:

• **Abdominal cramps** - Some abdominal pain is simply caused by change in bowel habits associated with pregnancy. Gas is a common problem that can cause sharp, shooting pain.

You should always seek out medical care if your pain is accompanied by fever, chills, pain upon urination or if you have difficulty walking. Further exams and tests will be conducted to ensure that you do not have a more serious condition. It is not uncommon for women with lower abdominal pain to have a urinary tract infection, thus you may also be asked for a urine sample.

### Treatment

If all other conditions are ruled out you can treat your round ligament pain relatively easily. You may be advised to take some acetaminophen (Tylenol) to reduce the severity of any persistent pain and asked to reduce your activity level. You can apply a heating pad to the area of pain or take a warm bath. Lying on the opposite side of the pain may help as well.

Most women will find relief from round ligament pain simply by altering their daily routines slightly. The good news is round ligament pain will disappear completely once you have given birth to your child!

# **Spotting in Pregnancy: Should You Worry?**

If you've ever watched Discovery Health <u>TV</u> show, "*I Didn't Know I Was Pregnant*," you'll discover there's a common theme among the different women. They all had <u>irregular periods</u> and they all had light "periods" throughout their <u>pregnancy</u>. In a nutshell, many of the women experienced <u>spotting</u> throughout their unknown pregnancies.

Any vaginal bleeding can be scary, but if you experience spotting (light bleeding – similar to a very light day of your period), you shouldn't worry too much. Spotting in pregnancy is normal. In fact, between 20 and 30 percent of all pregnant women will experience spotting in the first trimester.

Try not to worry if you experience spotting (which is usually light pink or brownish in color – never bright red). Your risk of complications is less than five percent, according to new research from the Society of Maternal-Fetal Medicine.

# What Causes Spotting in Pregnancy?

Spotting in early pregnancy is almost always due to implantation (when the fertilized egg embeds itself into the lining of your uterus). Implantation can trigger a few days of light bleeding, and it can occur before the woman realizes she's pregnant.

Another possible cause of spotting in the first trimester is a cervical polyp, which is a harmless cervical growth that's more likely to bleed in pregnancy due to the elevated levels of estrogen in your body. Since there are more blood vessels in the tissue around your cervix in pregnancy, any physical contact with this area (i.e. having sex or undergoing a cervical exam) can lead to light spotting or bleeding.

Sometimes, your spotting is unrelated to any hormonal or pregnancy changes. Other causes of spotting in pregnancy include yeast and urinary tract infections (both of which are rather common when you're expecting) and hemorrhoids.

# When to Call Your Doctor about Spotting

Although spotting in early pregnancy is normal, it's always a good idea to call your doctor to make sure that the light bleeding you're noticing isn't due to a complication – such as a threatened miscarriage or <u>ectopic pregnancy</u>. Your doctor or physician to examine you to make sure that everything is OK.

Signs of a potential miscarriage include bright red bleeding that comes with abdominal cramping. If your spotting is brownish or reddish, and it does not come with any pain or discomfort, your pregnancy is most likely fine.

Later in your pregnancy, you should always talk to your doctor about any bleeding you experience. Spotting in late pregnancy can be a sign of:

- Loss of your mucus plug A sign that labor might be on its way. You can lose your mucus plug weeks or days before labor starts.
- **Placental abruption** Your placenta starts to separate from the uterus before your baby is ready to be born.
- **Incompetent cervix** Your cervix starts to efface and dilate too early.
- Placenta previa The placenta starts to partially or completely covers the cervix.

Try not to worry about complications, however. Spotting is normal in most situations. But it's a good idea to contact your caregiver. He or she can give you reassurance that everything is just fine with your baby.

# **Exercises After Your Baby Is Born**

## Head Lifts

Head lifts can progress to shoulder lifts and curl-ups, all of which strengthen the abdomen. When you can do 10 head lifts at a time, proceed to shoulder lifts.

- 1. Lie on your back with your knees bent, your feet flat on the floor, and your arms along your sides. Inhale.
- 2. Exhale slowly as you lift your head off the floor.
- 3. Inhale as you lower your head.

# ... Curl-ups

- 1. Lie on your back with your knees bent and your feet flat on the floor.
- 2. Exhale. Reach with your arms, and slowly raise up halfway between your knees and the floor.
- 3. Inhale as you lower yourself to the floor.



## Leg Slides

Tones abdomen and legs. Does not put much strain on your incision if you've had a cesarean birth.

- 1. Lie flat on your back and bend your knees slightly.
- 2. Inhale. Slide your right leg from a bent to a straight position. Exhale, and bend it back again.
- 3. Keep both feet relaxed on the floor.
- 4. Repeat with left leg.





When you can do 10 shoulder lifts at a time, proceed to

1. Lie on your back with your knees bent, your feet flat

2. Exhale slowly and lift your head and shoulders off the

on the floor, and your arms along your sides. Inhale,

floor. Reach with your arms so you do not use them

# **Kneeling Pelvic Tilt**

Strengthens your abdominal muscles.

1. Kneel on your hands and knees with your back straight. Inhale.

Shoulder Lifts

for support.

3. Inhale as you lower

curl-ups.

- Exhale and pull your buttocks forward, rotating the pubic bone upward.
- Hold for 3 seconds. Repeat 5 times.











### The American College of Obstetricians and Gynecologists Women's Health Care Physicians

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# **Exercises During Your Pregnancy**

# **Diagonal Curl**

Strengthens your back, hips, and abdomen. If you have not been exercising regularly, skip this exercise.



- 1. Sit on the floor with your knees bent, feet on the floor, and hands clasped in front of you.
- 2. Twist your upper torso to the left until your hands touch the floor. Do the same movement to the right. Repeat on both sides 5 times.



# Trunk Twist

Stretches the muscles of your back, spine, and upper torso.

- 1. Sit on the floor with your legs crossed.
- 2. Hold your left foot with your left hand using your right hand for support.
- 3. Slowly twist your upper torso to the right.
- 4. Switch hands and repeat on the left. Repeat on both sides 5-10 times.

# Forward Bend

Stretches and strengthens the muscles of your back.

- 1. Sit in a chair in a comfortable position. Keep your arms relaxed.
- 2. Bend forward slowly, with your arms in front and hanging down. Stop bending if you feel any discomfort on your abdomen.
- 3. Hold for 5 seconds, then sit up slowly without arching your back. Repeat 5 times.

# **Rocking Back Arch**

Stretches and strengthens the muscles of your back, hips, and abdomen.

- 1. Kneel on hands and knees with your back straight.
- 2. Rock back and forth for a count of 5.
- Return to the original position and curl your back up as 3. far as you can. Repeat 5-10 times.





# **Backward Stretch**

Stretches and strengthens the muscles of your back, pelvis, and thighs.

- 1. Kneel on hands and knees, with your knees 8-10 inches apart and your arms straight (hands under your shoulders).
- 2. Curl backward slowly, tucking your head toward your knees and keeping your arms extended.
- 3. Hold for 5 seconds, then return to all fours slowly. Repeat 5 times.

# Upper Body Bends

Strengthens the muscles of your back and torso.

- 1. Stand with your legs apart, knees bent slightly, with your hands on your hips.
- 2. Bend forward slowly, keeping your upper back straight, until you feel the muscle stretch along your upper thigh. Repeat 10 times.

# Leq Lift Crawl

Strengthens the muscles of your back and abdomen.

- 1. Kneel on hands and knees with your arms straight (hands under your shoulders).
- 2. Lift your left knee and bring it toward your elbow.
- 3. Straighten your leg back. Do not swing your leg back or arch your back. Repeat on both sides 5-10 times.

# **Back Press**

Strengthens the muscles of your back, torso, and upper body and promotes good posture.

- 1. Stand with your back against a wall with your feet 10-12 inches away from it.
- 2. Press the lower part of your back against the wall.
- 3. Hold for 10 seconds. Repeat 10 times.















# **BASIC INFORMATION**

### DESCRIPTION

Burning pain in the chest and upper abdomen during pregnancy.

### FREQUENT SIGNS AND SYMPTOMS

• Burning pain in the center of the chest and upper abdomen, frequently accompanied by an unpleasant taste in the mouth.

• Belching.

### CAUSES

Heartburn is not associated with a heart disorder. It is caused by a backflow of acid from the stomach into the esophagus. The muscles that close off the upper stomach become lax, allowing stomach juices to enter the esophagus and irritate its lining. During late pregnancy, the enlarged womb presses on the stomach and causes this condition.

### **RISK INCREASES WITH**

- Overeating or eating before lying down.
- · Smoking.
- Excess alcohol consumption.

### **PREVENTIVE MEASURES**

Avoid risk factors listed above.

### **EXPECTED OUTCOMES**

This is an uncomfortable but harmless condition. It disappears after the baby is born unless its cause is not related to pregnancy.

### **POSSIBLE COMPLICATIONS**

Inflammation and ulcer in the lower esophagus (rare).

# TREATMENT

### **GENERAL MEASURES**

- · Avoid stooping, especially after eating.
- Don't wear tight girdles or belts.

· Place books or blocks under the head of your bed to raise it about 4 inches.

· Don't smoke.

### **MEDICATIONS**

Medicine usually is not necessary for this disorder. Avoid all medicines while pregnant, if possible. As long as you can live with the symptoms, endure the discomfort without drugs or medicines.

### ACTIVITY

Stay active. Avoid abdominal exercises that require bending.

### DIET

- Eat small, frequent meals.
- Don't eat before bedtime.
- Avoid highly seasoned food.
- Don't drink alcohol.
- · Avoid very hot or very cold beverages.



# **NOTIFY OUR OFFICE IF**

• You or a family member has symptoms of heartburn during pregnancy. This should be diagnosed.

• The following occur after diagnosis:

Simple measures don't bring relief.

You begin vomiting late in pregnancy.

You vomit material that has blood in it or looks like coffee grounds.

You have black or tarry stools.



# **BASIC INFORMATION**

### DESCRIPTION

Nausea during pregnancy. This usually occurs in the morning, but may occur at any time. Most pregnant women experience at least mild morning sickness.

### FREQUENT SIGNS AND SYMPTOMS

Mild to severe nausea with or without vomiting usually during the first 12 to 14 weeks of pregnancy, but may continue throughout pregnancy.

### CAUSES

• Major hormone changes that take place to permit normal growth of the fetus. Progesterone and other hormones cause involuntary muscles to relax, probably slowing movement of food through the stomach and intestines. They may also affect the vomiting center in the brain.

• In addition, blood sugar is lower during early pregnancy in many women, contributing to gastrointestinal upsets.

### **RISK INCREASES WITH**

Unknown.

### **PREVENTIVE MEASURES**

Do not let your stomach get empty; eat something every 2 hours if necessary.

### **EXPECTED OUTCOMES**

Usually stops after the first 3 to 4 months of pregnancy.

### **POSSIBLE COMPLICATIONS**

Hyperemesis gravidarum, a condition of pregnancy characterized by severe nausea, vomiting, weight loss and electrolyte disturbance (rare).

# TREATMENT

### **GENERAL MEASURES**

• Try to identify the particular odors or foods that are most upsetting and avoid them.

• Keep rooms well-ventilated to prevent accumulation of cooking odors or cigarette smoke.

• Don't smoke cigarettes, and ask your family and friends not to smoke while you are experiencing morning sickness.

• Keep a positive attitude. If you have conflicts that you cannot resolve, ask for help from family, friends or professional counselors.

• Keep a daily record of your weight.

### MEDICATIONS

Medicine is usually not necessary for this disorder. Don't take any medications during pregnancy without medical advice. A trial of vitamin B-6 may be recommended, which appears safe at the present.

### ACTIVITY

No restrictions.

### DIET

The following may help minimize nausea:

• Place a small, quick-energy snack, such as soda crackers, at your bedside. Eat it before getting up in the morning.

• Eat a small snack at bedtime and when you get up to go to the bathroom during the night.

• Eat a snack as often as every hour or two during the day. Avoid large meals. Snacks should consist of high-protein foods, such as peanut butter on apple slices or celery; nuts; a quarter-sandwich; cheese and crackers; milk; cottage cheese; yogurt sprinkled with granola; and turkey or chicken slices. Avoid foods that are high in fat and salt but low in nutrition.

# 

• You have morning sickness that does not improve, despite the above measures.

• You vomit blood or material that resembles coffee grounds.

• You lose more than 1 or 2 pounds.

Safe Medications in Pregnancy



Condition	Safe Medications to Take D	uring Pregnancy*	
Allergy	~ Benadryl (diphenhydramir	1e)	~ Claritin
Cold & Flu	<ul> <li>Tylenol (acetaminophen) or Tylenol Cold</li> <li>Sudafed, Actifed, Dristan, Neosynephrine**</li> <li>Robitussin DM, Trind-DM, Vicks Cough Syrup, Romilar, Halls**</li> <li>**Do not take "SA" (sustained action) forms of these drugs or the "Multi-Symptom" forms of these drugs.</li> </ul>		
Constipation	~ Metamucil ~ Fiberall/Fibercon ~ Milk of Magnesia	~ Citrucil ~ Benefiber ~ Senokot	~ Miralax ~ Colace
Diarrhea	For 24 hours, only after 12 w ~ Imodium	veeks of pregnancy:	
Headache	~ Tylenol (acetaminophen)		
Heartburn	~ Maalox ~ Pepcid	~ Mylanta ~ Zantac	~ Tums
Hemorrhoids	<ul> <li>Preparation H</li> <li>Tucks</li> </ul>	~ Anusol ~ Witch hazel	
Nausea & Vomiting	<ul> <li>Vitamin B6 100 mg tablet</li> <li>Emetrol (if not diabetic)</li> <li>Unisom</li> </ul>	~ Sea Bands (wrist ~ Dramamine "less	
Rashes	<ul> <li>Hydrocortisone cream or oir</li> <li>Caladryl lotion or cream</li> <li>Oatmeal Bath (Aveeno)</li> </ul>		
Yeast Infection	~ Monistat - 7 day. Do not ir	nsert applicator too fai	r.
*Please Note: No drug can be considered 100% safe to use during pregnancy. (Last reviewed 2/2015)			

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# - NOW ACCEPTING NEW PATIENTS -

Medicamentos seguros durante el embarazo:



				_
Condicion:	Medicamentos:*			
Allergia	~ Benadryl (diphenhydramin	1e)	~ Claritin	
Resfridos y Gripe	<ul> <li>Tylenol (acetaminophen) or Tylenol Cold</li> <li>Sudafed, Actifed, Dristan, Neosynephrine**</li> <li>Robitussin DM, Trind-DM, Vicks Cough Syrup, Romilar, Halls**</li> <li>*No tome una "acción sostenida" de estos medicamentos o las formas de "sintomas múltiples".</li> </ul>			
Estreñimiento	~ Metamucil ~ Fiberall/Fibercon ~ Leche de Magnesia	~ Citrucil ~ Benefiber ~ Senokot	~ Miralax ~ Colace	
Diarrea	Durante las primeras 24 hora embarazo:	as, sólo después de ´ ~ Imodium	12 semanas de	
Dolor de Cabeza	~ Tylenol (acetaminophen)			
Acidez	~ Maalox ~ Pepcid	~ Mylanta ~ Zantac	~ Tums	
Hemorrhoides	~ Preparation H ~ Tucks	~ Anusol ~ Witch hazel		
Nausea y Vomito	<ul> <li>Tabletas de Vitamin B6 100</li> <li>Emetrol (si no es diabetico)</li> <li>Unisom</li> </ul>	0	nos soñoliento"	n 3-2014)
Sarpullido	~ Crema o ungüento Hydroco ~ Crema de Caladryl ~ Bano de avena (Aveeno)			(ultima revisión 3-2014)
Infección por leva	d <mark>uras</mark> ~ Monistat por 7 dias. No	inserte aplicador vagi	nal demasiado dent	tro.
* Darfavar tanga an a	wanta qua ningun madicamanta ca n	undo considerar 1000/ co	aura duranta al amba	

\*Porfavor, tenga en cuenta que ningun medicamento se puede considerar 100% seguro durante el embarazo

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# - ACCEPTANDO NUEVOS PACIENTES -

# **Food Safety**



U.S. Department of Agriculture Food and Drug Administration Thank you to Lydia Medeiros, Ph.D., R.D., Patricia A. Kendall, Ph.D., R.D., and Val Hillers, Ph.D., R.D., for their assistance and groundbreaking research and outreach to the at-risk community. Food safety is important for everyone—but it is especially important for you and your unborn child. That is why the U.S. Department of Agriculture's Food Safety and Inspection Service prepared this booklet. It is designed to provide practical guidance on how to reduce your risk of foodborne illness. In addition to this guide, we strongly encourage you to check with your obstetrician, or health care provider about foods that are best for you during your pregnancy. We also encourage you to read this brochure to learn how you can help protect yourself and your unborn child from foodborne illness.



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Check out the handy **Check Your Steps** Clip-out Info Cards between pages 10 and 11 of this booklet!

### Foodborne Illness in the United States

When certain disease-causing bacteria, viruses or parasites contaminate food, they can cause foodborne illness. Another word for such a bacteria, virus, or parasite is "pathogen." Foodborne illness, often called *food poisoning*, is an illness that comes from a food you eat.

- The food supply in the United States is among the safest in the world but it can still be a source of infection for all persons.
- According to the Centers for Disease Control and Prevention, 48 million persons get sick, 128,000 are hospitalized, and 3,000 die from foodborne infection and illness in the United States each year. Pregnant women and their unborn children have a higher risk of developing certain foodborne illnesses. Others who also have a higher risk include young children, the elderly, and people with a weakened immune system.
- "Listeriosis" is a foodborne illness caused by a harmful bacterium called *Listeria monocytogenes*. Every year, 2,500 Americans become ill with Listeriosis—one out of five cases result in death. Pregnant women and their unborn children have a higher risk of developing Listeriosis. "About one-third of listeriosis cases happen during pregnancy."
- There is a higher risk of developing Listeriosis with certain foods you eat. These include the following foods: certain ready-to-eat foods, refrigerated smoked fish, refrigerated luncheon meats, and soft cheeses made from unpasteurized milk.

# **Food Safety:** It's Especially Important for You

Congratulations on your pregnancy! Food safety should be important to everyone, but as a pregnant woman it is especially important for you to learn how to protect yourself and your unborn baby from foodborne illness.

When you become pregnant, your body naturally undergoes hormonal changes, some of which also change your immune system, making you more susceptible to contracting a foodborne illness. The immune system is the body's natural reaction or response to "foreign invasion."

Everyone is susceptible to contracting a foodborne illness. However, because your immune system changes during pregnancy, and your unborn child has an underdeveloped immune system, you and your unborn child are at risk for illnesses associated with *Listeria monocytogenes* and *Toxoplasma gondii*.

• *Listeria monocytogenes* is a harmful bacterium found in many foods. *Listeria monocytogenes* can lead to a disease called listeriosis. Listeriosis can cause miscarriage, premature delivery, serious sickness, or death of a newborn baby.



• *Toxoplasma gondii* is a parasite found in numerous food sources, as well as dirty cat litter boxes and other areas where cat feces can be found. Toxoplasmosis can cause hearing loss, mental retardation, and blindness.

The good news is that you can take special effort to select and prepare foods to prevent contracting these and other foodborne diseases. This guide is written especially for you to help show you how to protect yourself and your unborn baby from contracting a foodborne illness.

> Make safe food handling a priority while pregnant and make it a lifelong commitment to help protect you and your family from foodborne illness.

# **Major Pathogens That Cause Foodborne Illness**

Campylobacter		
Associated Foods	Symptoms and Potential Impact	
<ul> <li>Untreated or contaminated water</li> <li>Unpasteurized ("raw") milk</li> <li>Raw or undercooked meat, poultry, or shellfish</li> </ul>	• Fever, headache, and muscle pain followed by diarrhea (sometimes bloody), abdominal pain, and nausea. Symptoms appear 2 to 5 days after eating and may last 2 to 10 days. May spread to the bloodstream and cause a life-threatening infection.	
Cryptosporidium		
<b>Associated Foods/Sources</b>	Symptoms and Potential Impact	
<ul> <li>Swallowing contaminated water, including that from recreational sources, (e.g., a swimming pool or lake)</li> <li>Eating uncooked or contaminated food</li> <li>Placing a contaminated object in the mouth</li> <li>Soil, food, water, and contaminated surfaces</li> </ul>	<ul> <li>Watery diarrhea, dehydration, weight loss, stomach cramps or pain, fever, nausea, and vomiting; respiratory symptoms may also be present.</li> <li>Symptoms begin 7 to 10 days after becoming infected, and may last 2 to 14 days. In those with a weakened immune system, including pregnant women, symptoms may subside and return over weeks to months.</li> </ul>	
Clostridium perfringens		
Associated Foods/Sources	Symptoms and Potential Impact	
• Many outbreaks result from food left for long periods in steam	<ul> <li>Onset of watery diarrhea and abdominal cramps within about 16 hours. The illness</li> </ul>	

2 weeks.

rarely.

- left for long periods in steam tables or at room temperature and time and/or temperature abused foods.
- Meats, meat products, poultry, poultry products, and gravy

### Listeria monocytogenes

Can grow slowly at refrigerator temperatures

### **Associated Foods**

- Improperly reheated hot dogs, luncheon meats, cold cuts, fermented or dry sausage, and other deli-style meat and poultry
- Unpasteurized (raw) milk and soft cheeses made with unpasteurized (raw) milk
- Smoked seafood and salads made in the store such as ham salad, chicken salad, or seafood salads
- Raw vegetables

### Symptoms and Potential Impact

• Fever, chills, headache, backache, sometimes upset stomach, abdominal pain, and diarrhea. May take up to 2 months to become ill.

usually begins suddenly and lasts for 12 to 24

hours. In the elderly, symptoms may last 1 to

• Complications and/or death occur only very

- Gastrointestinal symptoms may appear within a few hours to 2 to 3 days, and disease may appear 2 to 6 weeks after ingestion. The duration is variable.
- Those at-risk (including pregnant women and others with weakened immune systems) may later develop more serious illness; death can result from this bacteria.
- Can cause problems with pregnancy, including miscarriage, fetal death, or severe illness or death in newborns.

Escherichia coli 0157:H7			
One of several strains of <i>E. coli</i> that c			
<ul> <li>Associated Foods</li> <li>Undercooked beef, especially hamburger</li> <li>Unpasteurized milk and juices, like "fresh" apple cider</li> <li>Contaminated raw fruits and vegetables, and water</li> <li>Person-to-person contact</li> </ul>	<ul> <li>Symptoms and Potential Impact</li> <li>Severe diarrhea that is often bloody, abdominal cramps, and vomiting. Usually little or no fever.</li> <li>Can begin 1 to 9 days after contaminated food is eaten and lasts about 2 to 9 days.</li> <li>Some, especially the very young, may develop hemolytic-uremic syndrome (HUS), which can cause acute kidney failure, and can lead to permanent kidney damage or even death</li> </ul>		
Noroviruses (and other cali	civiruses)		
Associated Foods	Symptoms and Potential Impact		
<ul> <li>Shellfish and fecally- contaminated foods or water</li> <li>Ready-to-eat foods touched by infected food workers; for example, salads, sandwiches, ice, cookies, fruit</li> </ul>	<ul> <li>Nausea, vomiting, and stomach pain usually start between 24 and 48 hours, but cases can occur within 12 hours of exposure. Symptoms usually last 12 to 60 hours.</li> <li>Diarrhea is more prevalent in adults and vomiting is more prevalent in children.</li> </ul>		
Salmonella (over 2,300 types)			
Associated Foods	Symptoms and Potential Impact		
<ul> <li>Raw or undercooked eggs, poultry, and meat</li> <li>Unpasteurized (raw) milk or juice</li> <li>Cheese and seafood</li> <li>Fresh fruits and vegetables</li> </ul>	<ul> <li>Stomach pain, diarrhea (can be bloody), nausea, chills, fever, and/or headache usually appear 6 to 72 hours after eating; may last 4 to 7 days.</li> <li>In people with a weakened immune system, such as pregnant women, the infection may be more severe and lead to serious complications including death.</li> </ul>		
Toxoplasma gondii			
Associated Foods/Sources	Symptoms and Potential Impact		
<ul> <li>Accidental contact of cat feces through touching hands to mouth after gardening, handling cats, cleaning cat's litter box, or touching anything that has come in contact with cat feces.</li> <li>Raw or undercooked meat.</li> </ul>	<ul> <li>Flu-like illness that usually appears 10 to 13 days after eating, may last months. Those with a weakened immune system, including pregnant women, may develop more serious illness.</li> <li>Can cause problems with pregnancy, including miscarriage and birth defects.</li> </ul>		
Vibrio vulnificus	Syn <del>f</del> ptoms and Potential Impact		
<ul> <li>Associated Foods</li> <li>Undercooked or raw seafood (fish or shellfish)</li> </ul>	<ul> <li>Diarrhea, stomach pain, and vomiting may appear within 4 hours to several days and last 2 to 8 days. May result in a blood infection. May result in death for those with a weakened immun system, including pregnant women, people with cancer or liver disease.</li> </ul>		

# **Eating at Home:** Making Wise Food Choices

Some foods are more risky for you than others. In general, the foods that are most likely to contain harmful bacteria or viruses fall into two categories:

• *Uncooked* fresh fruits and vegetables

• Some animal products, such as unpasteurized (raw) milk; soft cheeses made with raw milk; and raw or undercooked eggs, raw meat, raw poultry, raw fish, raw shellfish and their juices; luncheon meats and deli-type salads (without added preservatives) prepared on site in a deli-type establishment. Interestingly, the risk these foods may actually pose depends on the origin or source of the food and how the food is processed stared and prepared. Follow these

*processed, stored, and prepared.* Follow these guidelines (see chart at right) for safe selection and preparation of your favorite foods.

### If You Have Questions ...

### ... about Wise Food Choices:

Be sure to consult with your doctor or health care provider. He or she can answer any specific questions or help you in your choices.

### ... about Particular Foods:

If you are not sure about the safety of a food in your refrigerator, don't take therisk.

### When in doubt, throw it out!

# *Wise choices in your food selections are important.*

All consumers need to follow the Four Basic Steps to Food Safety: *Clean, Separate, Cook,* and *Chill*.



Check your steps at FoodSafety.gov
### **Common Foods: Select the Lower Risk Options**

Type of Food	Higher Risk	Lower Risk
Meat and Poultry	• Raw or undercooked meat or poultry	• Meat or poultry cooked to a safe minimum internal temperature (see chart on p. 10)

*Tip: Use a food thermometer to check the internal temperature on the "Is It Done Yet?" chart on page 10 for specific safe minimum internal temperature.* 

Seafood	<ul> <li>Any raw or undercooked fish, or shellfish, or food containing raw or undercooked seafood e.g., sashimi, found in some sushi or ceviche. Refrigerated smoked fish</li> <li>Partially cooked seafood, such as shrimp and crab</li> </ul>	<ul> <li>Previously cooked seafood heated to 165 °F</li> <li>Canned fish and seafood</li> <li>Seafood cooked to 145 °F</li> </ul>
Milk	• Unpasteurized (raw) milk	<ul> <li>Pasteurized milk</li> </ul>
Eggs	<ul> <li>Foods that contain raw/undercooked eggs, such as:</li> <li>Homemade Caesar salad dressings*</li> <li>Homemade raw cookie dough*</li> <li>Homemade eggnog*</li> </ul>	<ul> <li>At home:</li> <li>Use pasteurized eggs/egg products when preparing recipes that call for raw or undercooked eggs</li> <li>When eating out:</li> <li>Ask if pasteurized eggs were used</li> </ul>

\*Tip: Most pre-made foods from grocery stores, such as Caesar dressing, pre-made cookie dough, or packaged eggnog are made with pasteurized eggs.

Sprouts	• Raw sprouts (alfalfa, bean, or any other sprout)	• Cooked sprouts	
Vegetables	• Unwashed fresh vegetables, including lettuce/salads	<ul><li>Washed fresh vegetables, including salads</li><li>Cooked vegetables</li></ul>	
Cheese	<ul> <li>Soft cheeses made from unpasteurized (raw) milk, such as:</li> <li>– Feta</li> <li>– Brie</li> <li>– Camembert</li> <li>– Blue-veined</li> <li>– Queso fresco</li> </ul>	<ul> <li>Hard cheeses</li> <li>Processed cheeses</li> <li>Cream cheese</li> <li>Mozzarella</li> <li>Soft cheeses that are clearly labeled "made from pasteurized milk"</li> </ul>	
Hot Dogs and Deli Meats	• Hot dogs, deli meats, and luncheon meats that have not been reheated	• Hot dogs, luncheon meats, and deli meats reheated to steaming hot or 165 °F	

*Tip: You need to reheat hot dogs, deli meats, and luncheon meats before eating them because the bacteria Listeria monocytogenes grows at refrigerated temperatures (40 °F or below). This bacteria may cause severe illness, hospitalization, or even death. Reheating these foods until they are steaming hot destroys these dangerous bacteria and makes these foods safe for you to eat.* 

Pâtés• Unpasteurized, refrigerated pâtés or meat spreads• Canned or shelf-stab pâtés or meat spread	
---	--

### **Taking Care**:

# Handling and Preparing Food Safely

Foodborne pathogens are sneaky. You cannot tell by looking, smelling, or even tasting a food whether it contains pathogens. But these pathogens—like disease-causing bacteria, viruses, or parasites—can make you sick. You should never taste a food to determine if it is safe to eat.



As a pregnant woman, it is especially important that you—or those preparing your food—are always careful with food handling and preparation. The easiest way to do this is to Check Your Steps – *clean*, *separate*, *cook*, *and chill* – from the Food Safe Families Campaign.

### Four Basic Steps to Food Safe-



#### 1. Clean: Wash hands and surfaces often

Bacteria can spread throughout the kitchen and get onto cutting boards, utensils, counter tops, and food.

# To ensure that your hands and surfaces are clean, be sure to:

- Wash hands in warm soapy water for at least 20 seconds before and after handling food and after using the bathroom, changing diapers, or handling pets.
- Wash cutting boards, dishes, utensils, and counter tops with hot soapy water between the preparation of raw meat, poultry, and seafood products and preparation of any other food that will not be cooked. As an added precaution, sanitize cutting boards and countertops by rinsing them in a solution made of one tablespoon of unscented liquid chlorine bleach per gallon of water, or, as an alternative, you may run the plastic board through the wash cycle in your automatic dishwasher.
- Use paper towels to clean up kitchen surfaces. If using cloth towels, you should wash them often in the hot cycle of the washing machine.
- Wash produce. Rinse fruits and vegetables, and rub firm-skin fruits and vegetables under running tap water, including those with skins and rinds that are not eaten.
- With canned goods: remember to clean lids before opening.



#### 2. Separate: Don't cross-contaminate

Cross-contamination occurs when bacteria are spread from one food product to another. This is especially common when handling raw meat, poultry, seafood, and eggs. The key is to keep these foods—and their juices—away from ready-to-eat foods.

#### To prevent cross-contamination, remember to:

- Separate raw meat, poultry, seafood, and eggs from other foods in your grocery shopping cart, grocery bags, and in your refrigerator.
- Never place cooked food on a plate that previously held raw meat, poultry, seafood, or eggs without first washing the plate with hot soapy water.
- Don't reuse marinades used on raw foods unless you bring them to a boil first.
- Consider using one cutting board only for raw foods and another only for ready-to-eat foods, such as bread, fresh fruits and vegetables, and cooked meat.



#### **3. Cook:** Cook to safe temperatures

Foods are safely cooked when they are heated to the USDA-FDA recommended safe minimum internal temperatures, as shown on the "Is It Done Yet?" chart (see next page).

#### To ensure that your foods are cooked safely, always:

- Use a **food thermometer** to measure the internal temperature of cooked foods. Check the internal temperature in several places to make sure that the meat, poultry, seafood, or egg product is cooked to safe minimum internal temperatures.
- Cook **ground beef** to at least 160 °F and **ground poultry** to a safe minimum internal temperature of 165 °F. Color of food is not a reliable indicator of safety or doneness.
- Reheat **fully cooked hams** packaged at a USDA-inspected plant to 140 °F. For fully cooked ham that has been repackaged in any other location or for leftover fully cooked ham, heat to 165 °F.
- Cook **seafood** to 145 °F. Cook **shrimp**, **lobster**, **and crab** until they turn red and the flesh is pearly opaque. Cook **clams**, **mussels**, **and oysters** until the shells open. If the shells do not open, do not eat the oyster inside.
- Cook eggs until the yolks and whites are firm. Use only recipes in which the eggs are cooked or heated to 160 °F.
- Cook all raw **beef**, **lamb**, **pork**, **and veal steaks**, **roasts**, **and chops** to 145 °F with a 3-minute rest time after removal from the heat source.

#### **3. Cook:** Cook to safe temperatures (cont.)

- Bring **sauces**, **soups**, **and gravy** to a boil when reheating. Heat other leftovers to 165 °F.
- Reheat hot dogs, luncheon meats, bologna, and other deli meats until steaming hot or 165 °F.
- When cooking in a microwave oven, cover food, stir, and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer. Food is done when it reaches the USDA-FDA recommended safe minimum internal temperature.

### Is It Done Yet?

Use a food thermometer to be most accurate. You can't always tell by looking.





#### 4. Chill: Refrigerate promptly

Cold temperatures slow the growth of harmful bacteria. Keeping a constant refrigerator temperature of **40** °**F** or below is one of the most effective ways to reduce risk of foodborne illness. Use an appliance thermometer to be sure the refrigerator temperature is consistently 40 °F or below and the freezer temperature is 0 °F or below.

#### To chill foods properly:

- Refrigerate or freeze meat, poultry, eggs, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90 °F.
- Never thaw food at room temperature, such as on the counter top. It is safe to thaw food in the refrigerator, in cold water, or in the microwave. If you thaw food in cold water or in the microwave, you should cook it immediately.
- Divide large amounts of food into shallow containers for quicker cooling in the refrigerator.
- Follow the recommendations in the abridged USDA-FDA Cold Storage Chart (see page 11). The USDA-FDA Cold Storage Chart in its entirety may be found at www.fsis.usda.gov/Fact\_Sheets/Refrigeration\_&\_Food\_Safety/index.asp.

# **USDA-FDA Cold Storage Chart**

These time limit guidelines will help keep refrigerated food safe to eat. Because freezing keeps food safe indefinitely, recommended storage times for frozen foods are for quality only.

Product	Refrigerator (40 °F)	Freezer (0 °F)				
Eggs						
Fresh, in shell	3 to 5 weeks	Don't freeze				
Hard cooked	1 week	Don't freeze well				
Liquid Pasteurized Eggs, Egg	Liquid Pasteurized Eggs, Egg Substitutes					
Opened	3 days	Don't freeze well				
Unopened	10 days	1 year				
Deli and Vacuum-Packed Pro	ducts					
Egg, chicken, ham, tuna,						
& macaroni salads	3 to 5 days	Don't freeze well				
Hot Dogs						
Opened package	1 week	1 to 2 months				
Unopened package	2 weeks	1 to 2 months				
Luncheon Meat						
Opened package	3 to 5 days	1 to 2 months				
Unopened package	2 weeks	1 to 2 months				
Bacon & Sausage						
Bacon	7 days	1 month				
Sausage, raw-from						
chicken, turkey, pork, beef	1 to 2 days	1 to 2 months				
Hamburger and Other Groun	nd Meats					
Hamburger, ground beef,						
turkey, veal, pork, lamb, &						
mixtures of them	1 to 2 days	3 to 4 months				
Fresh Beef, Veal, Lamb, Pork						
Steaks	3 to 5 days	6 to 12 months				
Chops	3 to 5 days	4 to 6 months				
Roasts	3 to 5 days	4 to 12 months				
Fresh Poultry						
Chicken or turkey, whole	1 to 2 days	1 year				
Chicken or turkey, pieces	1 to 2 days	9 months				
Seafood						
Lean fish (flounder, haddock,						
halibut, etc.)	1 to 2 days	6 to 8 months				
Fatty fish (salmon, tuna, etc.)	1 to 2 days	2 to 3 months				
Leftovers						
Cooked meat or poultry	3 to 4 days	2 to 6 months				
Chicken nuggets, patties	3 to 4 days	1 to 3 months				
Pizza	3 to 4 days	1 to 2 months				

### **Check Your Steps**



- Check "Sell-By" date
- Put raw meat, poultry, or seafood in plastic bags
- Buy only pasteurized milk, soft cheeses made with pasteurized milk, and pasteurized or juices that have been otherwise treated to control harmful bacteria.
- When buying eggs:
  - Purchase refrigerated shell eggs
  - If your recipe calls for raw eggs, purchase pasteurized, *refrigerated* liquid eggs
- Don't buy food displayed in unsafe or unclean conditions

# Is It Done Yet?

You can't tell by looking. Use a food thermometer to be sure.

USDA-FDA Recommended Safe Minimum Internal Temperatures



with 3-minute



145 °F



Ground

16N °F



160 °F



Turkey, Chicken & Duck Whole, Pieces & Ground **165** °**F** 

# **Ordering "Smart" When Eating Out**

#### Higher Risk:

- Cheese made from unpasteurized (raw) milk.
- X Raw or undercooked seafood.
- X Cold hot dogs.
- Sandwiches with cold deli or luncheon meat.
- Raw or undercooked fish, such as sashimi or some kind of sushi.
- Soft-boiled or "over-easy" eggs, as the yolks are not fully cooked.

#### Lower Risk:

- Hard or processed cheeses. Soft cheeses only if made from pasteurized milk.
- ✓Fully cooked smoked fish or seafood.
- Hot dogs reheated to steaming hot. If the hot dogs are served cold or lukewarm, ask to have the hot dogs reheated until steaming, or else choose something else.
- Grilled sandwiches in which the meat or poultry is heated until steaming.
- Fully cooked fish that is firm and flaky; vegetarian sushi.
- Fully cooked eggs with firm yolk and whites.







# In the Know: Becoming a Better Shopper

Follow these safe food-handling practices while you shop.

- Carefully read food labels while in the store to make sure food is not past its "sell by" date. (See Food Product Dating on page 13)
- Put raw packaged meat, poultry, or seafood into a plastic bag before placing it in the shopping cart, so that its juices will not drip on and contaminate—other foods. If the meat counter does not offer plastic bags, pick some up from the produce section before you select your meat, poultry, and seafood.
- Buy only pasteurized milk, cheese, and other dairy products from the refrigerated section. When buying fruit juice from the refrigerated section of the store, be sure that the juice label says it is **pasteurized**.
- Purchase eggs in the shell from the refrigerated section of the store. (Note: store the eggs in their original carton in the main part of your refrigerator once you are home.) For recipes that call for eggs that are raw or undercooked when the dish is served — homemade Caesar salad dressing and ice cream are two examples—use either shell eggs that have been treated to destroy *Salmonella* by pasteurization, or pasteurized egg products. When consuming raw eggs, using pasteurized eggs is the safer choice.
- Never buy food that is displayed in unsafe or unclean conditions.
- When purchasing canned goods, make sure that they are free of dents, cracks, or bulging lids. (Once you are home, remember to clean each lid before opening the can.)
- Purchase produce that is not bruised or damaged.

When shopping for food, it is important to read the label carefully.

### **Food Product Dating**

# Read the "Safe Handling Label" for food safety information on raw foods.

#### **Types of Open Dates**

Open dating is found primarily on perishable foods such as meat, poultry, eggs, and dairy products.

- A **"Sell-By"** date tells the store how long to display the product for sale. You should buy the product before the date expires.
- A **"Best If Used By (or Before)"** date is recommended for best flavor or quality. It is not a purchase or safety date.
- A "Use-By" date is the last date recommended for the use of the product while at peak quality. The date has been determined by the manufacturer of the product.





"Closed or coded dates" are packing numbers for use by the manufacturer. "Closed" or "coded" dating might appear on shelf-stable products such as cans and boxes of food.

### **Transporting Your Groceries**



Follow these tips for safe transporting of your groceries:

- Pick up perishable foods last, and plan to go directly home from the grocery store.
- Always refrigerate perishable foods within 2 hours of cooking or purchasing.
- Refrigerate within 1 hour if the temperature outside is above 90 °F.
- In hot weather, take a cooler with ice or another cold source to transport foods safely.

# **Being Smart** When Eating Out

Eating out can be lots of fun—so make it an enjoyable experience by following some simple guidelines to avoid foodborne illness. Remember to observe your food when it is served, and don't ever hesitate to ask questions before you order. Waiters and waitresses can be quite helpful if you ask how a food is prepared. Also, let them know you don't want any food item containing raw meat, poultry, fish, sprouts, or eggs.

#### **Basic Rules for Ordering**

- Ask whether the food contains uncooked ingredients such as eggs, sprouts, meat, poultry, or seafood. If so, choose something else.
- Ask how these foods have been cooked. If the server does not know the answer, ask to speak to the chef to be sure your food has been cooked to a safe minimum internal temperature.
- If you plan to get a "doggy bag" or save leftovers to eat at a later time, refrigerate perishable foods as soon as possible—and always within 2 hours after purchase or delivery. If the leftover food is in air temperatures above 90 °F, refrigerate it within 1 hour.

### If in doubt, make another selection!

### **Smart Menu Choices**

Higher Risk:	Lower Risk:		
★ Soft cheese made from unpasteurized (raw) milk.	<ul> <li>Hard or processed cheeses. Soft cheeses only if they are made from pasteurized milk.</li> </ul>		
✗ Refrigerated smoked seafood and raw or undercooked seafood.	✔ Fully cooked fish or seafood.		
Cold or improperly heated hot dogs.	✓ Hot dogs reheated to steaming hot. If the hot dogs are served cold or lukewarm, ask to have them reheated until steaming, or else choose something else.		
✗ Sandwiches with cold deli or luncheon meat.	<ul> <li>Grilled sandwiches in which the meat or poultry is heated until steaming.</li> </ul>		
✗ Raw or undercooked fish, such as sashimi, non-vegetarian sushi, or cerviche.	✓ Fully cooked fish that is firm and flaky		
Soft-boiled or "over-easy" eggs, as the yolks are not fully cooked.	✓ Fully cooked eggs with firm yolk and whites.		
✗ Salads, wraps, or sandwiches containing raw (uncooked) or lightly cooked sprouts	<ul> <li>Salads, wraps, or sandwiches containing cooked sprouts.</li> </ul>		

#### Ask questions about how your food is cooked.

### **Tips for Transporting Food**

- Keep cold food cold, at 40 °F or below. To be safest, place cold food in cooler with ice or frozen gel packs. Use plenty of ice or frozen gel packs. Cold food should be at 40 °F or below the entire time you are transporting it.
- Hot food should be kept hot at 140 °F or above. Wrap the food well and place in an insulated container.

#### Stay "Food Safe" When Traveling Internationally

Discuss your travel plans with your physician before traveling to other countries. Your physician may have specific recommendations for the places you are visiting, and may suggest extra precautions or medications to take on your travels.

For more information about safe food and water while traveling abroad, access the Centers for Disease Control and Prevention Web site at **www.cdc.gov/travel**.

# **Foodborne lliness:** *Know the Symptoms*

Despite your best efforts, you may find yourself in a situation where you suspect you have a foodborne illness. Foodborne illness often presents itself with flu-like symptoms.

#### These symptoms include:

- Nausea
- Vomiting
- Diarrhea
- Fever

If you suspect that you could have a foodborne illness, there are four key steps that you should take. Follow the guidelines in the Foodborne Illness Action Plan on page 17, which begins with contacting your physician or healthcare provider right away.



# When in doubt—contact your physician or healthcare provider!

My Physicians: Quick Reference List			
Name:			
Phone:	Specialty:		
Name:			
Phone:	Specialty:		
Name:			
Phone:	Specialty:		

### **Foodborne Illness Action Plan**

If you suspect you have a foodborne illness, follow these general guidelines:

# **1.** Consult your physician or health care provider, or seek medical treatment as appropriate.

As a pregnant woman, you are at increased risk for severe infection.

- Contact your physician immediately if you develop symptoms or think you may be at risk.
- If you develop signs of infection as discussed with your physician, seek out medical advice and/or treatment immediately.

#### **2**. Preserve the food.

- If a portion of the suspect food is available, wrap it securely, label it to say "DANGER," and freeze it.
- The remaining food may be used in diagnosing your illness and in preventing others from becoming ill.



#### **3**. Save all the packaging materials, such as cans or cartons.

- Write down the food type, the date and time consumed, and when the onset of symptoms occurred. Write down as many foods and beverages you can recall consuming in the past week (or longer), since the onset time for various foodborne illnesses differ.
- Save any identical unopened products.
- If the suspect food is a USDA-inspected meat, poultry, or egg product, call the USDA Meat and Poultry Hotline, **1-888-MPHot-line** (**1-888-674-6854**). For all other foods, call the FDA Office of Emergency Operations at 1-866-300-4374 or 301-796-8240.

#### 4. Call your local health department ...

... if you believe you became ill from food you ate in a restaurant or other food establishment.

- The health department staff will be able to assist you in determining whether any further investigation is warranted.
- To locate your local health department, visit http://healthguideusa.org/local\_health\_departments.htm.

### For More Information on Food Safety

You may contact the USDA Food Safety and Inspection Service and the HHS Food and Drug Administration to obtain additional food safety information in both English and Spanish.

#### **Online**:

Information can be accessed on the FSIS Website at **www.fsis.usda.gov** or at the FDA Website at **www.fda.gov/food.** 

• Food Safety Questions? "Ask Karen"— The FSIS Virtual Representative an automated response system is available 24/7 at AskKaren.gov.



- Food Safety for Moms-To-Be www.fda.gov/Food/ResourcesForYou/HealthEducators/ucm081785.htm
- Preventing Listeriosis In Pregnant Hispanic Women in the U.S. www.fda.gov/Food/ResourcesForYou/HealthEducators/ucm062993.htm
- Send e-mail inquiries to **mphotline.fsis@usda.gov** or to **consumer@FDA.gov**.

#### **By Phone:**

Call the USDA Meat and Poultry Hotline at 1-888-MPHotline (1-888-674-6854) or call the FDA Food Information Line 1-888-SAFE FOOD (1-888-723-3366)

- These year-round, toll-free Hotlines are available Monday through Friday from 10 a.m. to 4 p.m. Eastern Time.
- An extensive selection of timely food safety messages is also available at these same numbers, 24 hours a day.

#### Local Resources:

### **Additional Food Safety Resources**

Gateway to Government Food Safety Information, including all recalls and alerts www.foodsafety.gov

Centers for Disease Control and Prevention 1-800-232-4636 (24-hour recorded information) www.cdc.gov/foodsafety

- National Center for Infectious Diseases/Traveler's Health http://wwwnc.cdc.gov/travel
- National Center for Infectious Diseases /Healthy Water www.cdc.gov/healthywater/

U.S. Environmental Protection Agency Office of Water http://water.epa.gov

Partnership for Food Safety Education (Fight BAC!®) www.fightbac.org

To order this and/or other At-risk booklets, contact the

USDA Meat and Poultry Hotline 1-888-MPHotline (1-888-674-6854) E-mail: mphotline.fsis@usda.gov or fsis.outreach@usda.gov

At-risk Food Safety Booklets for: Older Adults Pregnant Women People with Cancer People with Diabetes People with HIV/AIDS Transplant Recipients

To chat with our food safety virtual representative, contact "Ask Karen" FSIS's Web-based automated response system – available 24/7 Askkaren.gov PregunteleaKaren.gov

> Food Safety and Inspection Service www.fsis.usda.gov



U.S. Department of Agriculture Food Safety and Inspection Service



U.S. Department of Health and Human Services Food and Drug Administration

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Food Safety for Pregnant Women



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#### **PURPOSE:**

This diet is designed to provide the increased nutrients during pregnancy that are essential for the health of the mother and the well-being of the baby.

#### **DESCRIPTION:**

Foods from all basic food groups are included in quantities to meet the increased nutrient needs of pregnancy. Nutrient needs that are markedly increased include calories, protein, iron, folic acid and calcium. Alcohol should be avoided during pregnancy.

#### **BASIC INFORMATION:**

Weight Gain: Recommendations for the range of total weight gain and the pattern of weight gain should be based on prepregnancy weight for height. The pattern of weight gain is as important as total weight gain during pregnancy. Weight gain should be recorded on a chart that shows weight gain by gestational age.

#### **Pregnancy Weight Gain Recommendations**

Prepregnancy Weight	Total Weight Gain	Rate of Gain for 2nd and 3rd Trimesters
Normal Weight	25-35 pounds	1 pound/week
Underweight	28-40 pounds	More than 1 pound/week
Overweight	15-25 pounds	2/3 pound/week
Twins	30-35 pounds	1-1/2 pounds/week

#### **Nutrient Supplements**

Assessment of dietary intake should be completed for every pregnant woman. The increased nutrient needs of pregnancy can generally be met with slight changes in dietary habits.

Daily supplementation of 30 mg ferrous iron is usually prescribed for pregnant women in the second and third trimester. For those women with limited intakes of fruit, juices, leafy green vegetables or whole grains, folate may be prescribed.

Prenatal vitamin and mineral supplements should be provided for women with inadequate diets and for high risk populations. Excessive vitamin and mineral intakes should be avoided because of potential toxic effects in pregnancy. Vitamin and mineral supplements for use during pregnancy should not contain more than twice the recommended amount for adults.

#### Anemia

Iron deficiency is the most common cause of anemia in pregnancy. Iron needs markedly increase in pregnancy. Supplements of 2 mg copper and 15 mg zinc per day may be prescribed for women taking iron supplements of more than 30 mg per day.

Eat foods high in iron such as beef, pork, lamb and organ meats; iron fortified cereals; dried beans, peas, or lentils; dark green leafy vegetables; peanut butter and molasses. Combine foods high in Vitamin C with iron-rich foods. Use cast-iron cookware, if possible.

#### Caffeine

Although data from human studies do not provide significant evidence that caffeine affects pregnancy outcome, the Food and Drug Administration advises that pregnant women eliminate or limit consumption of caffeine-containing beverages such as coffee, tea and colas.

### **PREGNANCY NUTRITION DIET**

(Sheet 2 of 4)

#### **Diabetes Mellitus**

Pregnant women with any type of diabetes need special medical and nutritional care. Women with diabetes mellitus should achieve good blood sugar control prior to becoming pregnant. All other women should be screened for diabetes at 24 to 28 weeks of pregnancy.

#### Food Safety

Foodborne illness is especially dangerous for pregnant women. To avoid exposure to *Listeria*, pregnant women should avoid unpasteurized milk and soft cheeses; carefully follow "keep refrigerated" and "use by" dates; and thoroughly reheat processed meats such as hot dogs. To prevent toxoplasmosis, pregnant women should wash hands after handling cats, not clean cat litter boxes, avoid eating raw or partially cooked meats and wash hands after handling raw meat.

To avoid other foodborne diseases, proper foodhandling procedures should be followed including storing foods at proper temperatures; washing cutting boards and knives after contact with raw meat, poultry and seafood; and careful handwashing before and after handling food.

#### Hypertension

Immediate referral for medical treatment is essential for pregnant women with increases in blood pressure. A diet to meet the nutrient needs of pregnancy with ample but not excessive amounts of calories and protein should be encouraged. Sodium intake should not be restricted.

#### Pica

Pica is the practice of eating substances with little or no nutritional value. Pica in pregnancy often involves consumption of ice, dirt, clay or cornstarch. Less frequently, matches, hair, charcoal, cigarette ashes, mothballs, baking soda and coffee grounds may be eaten.

Nutritious food may be displaced by pica substances. Items such as starch that provide calories may result in excessive weight gain. Pica substances may contain toxic elements or interfere with mineral absorption, such as iron.

Pica has been associated with iron deficiency. If either iron deficiency or pica is identified during pregnancy, assessment should be initiated to see if the other problem exists.

#### Sodium

Normal sodium intake is needed during pregnancy to support the large prenatal expansion of tissues and fluids. Sodium should not be restricted.

#### **Teen Pregnancy**

Teens should gain weight at the upper end of the appropriate weight for height ranges. Teens are at high risk for iron deficiency and inadequate calorie intake. Eating regular meals and choosing healthy foods are especially important for teenagers.

#### **Vegetarian Diets**

Pregnant women consuming vegetarian diets need careful nutritional assessment. The type of vegetarian diet will determine the potential for nutrient deficiencies with increased risk as more foods are excluded. Most pregnant women consuming milk and eggs can meet the increased nutrient needs of pregnancy. Vegan diets will require careful planning to consume adequate protein from complementary plant proteins. Alternate sources of Vitamin  $B_{12}$  and calcium will be needed in a vegan diet. Iron status should be carefully monitored. Low prepregnancy weight and less than optimal weight gain are common problems for vegans. High calorie foods such as nuts, nut butter, wheat germ, avocados, dried fruit, coconut, honey and salad dressings may be needed.

**NUTRITIONAL ADEQUACY:** This diet is designed to provide adequate amounts of calories, protein, vitamins, minerals and other nutrients to meet the nutritional needs of a pregnant woman.

### **PREGNANCY NUTRITION DIET**

(Sheet 3 of 4)

Food Group and Recommended Serving	Serving Size
Dairy Foods (4 Servings)	1 cup milk or yogurt
Rich in calcium, protein, vitamins & minerals	1/3 cup dry milk powder
Sources:	1-1/2 ounces cheese
Milk, yogurt, cheese, salmon, dark leafy greens,	2 cups cottage cheese
cottage cheese	1/2 cup canned salmon
course cheese	
	2 cups dark leafy greens
Protein Foods (6 Servings)	1 ounce meat, chicken, or fish
Rich in protein, iron and B Vitamins	1/4 cup tuna, cottage cheese or tofu
Sources:	1 egg, or 1 ounce cheese
Beef, pork, lamb, chicken, fish,	2 tablespoons peanut butter
eggs, cheese, cottage cheese, tofu, peanut butter,	1/2 cup dried beans or peas
dried beans or peas, nuts, seeds	1/3 cup nuts, or 1/4 cup seeds
Vitamin A Rich Fruits and Vegetables (1 Serving)	1/2 cup cooked vegetables
Rich in vitamin A and fiber	1 cup raw dark leafy greens
Sources:	2 tablespoons chili peppers
Carrots, spinach, dark leafy greens, sweet potatoes,	1/2 cup red pepper
winter squash, chili peppers, red peppers, tomatoes,	2 medium tomatoes
cantaloupe, mango, papaya, apricots, vegetable	6 ounces vegetable juice cocktail
juice cocktail	1/2 cup raw green onions
	1/4 cup dried or 3 raw apricots
	1/2 medium papaya
	1/4 medium cantaloupe or mango
Vitamin C Rich Fruits and Vegetables (1 Serving)	6 ounces citrus juice
Rich in vitamin C and fiber	1 orange or lemon
Sources:	1/2 grapefruit or 2 medium tangerines
Oranges, grapefruit, tangerines, lemons, cantaloupe,	1/4 medium cantaloupe or papaya
kiwi fruit, strawberries, mango, papaya, broccoli, Brussels	1 medium kiwi fruit or mango
sprouts, cabbage, cauliflower, chili peppers, red and	1/2 cup strawberries
green peppers, tomatoes	1/2 cup broccoli, Brussels sprouts,
	or cauliflower
	1 cup raw or $1/2$ cup cooked cabbage
	2 tablespoons raw chili pepper
	1/2 cup red or green peppers
	2 medium tomatoes
Other Fruits and Vegetables (3-7 Servings)	1 piece fresh fruit
Rich in other vitamins, minerals and fiber	1/2 cup canned or cooked vegetables
Sources:	1 cup raw vegetables
Apples, bananas, grapes, peaches, pears, pineapple,	1/4 cup dried fruits or vegetables
plums, watermelon, green beans, beets, corn, cucumbers,	
lettuce, peas, potatoes, radishes, zucchini	
Bread and Cereals (6-11 Servings)	1 slice bread
Rich in B vitamins, iron and fiber	1 roll
Sources:	1 tortilla
Breads, tortillas, crackers, hot and cold cereals, rice,	1/2 cup rice or pasta
noodles, macaroni	3/4 cup cold cereal
	1/2 cup cooked cereal
_	1 ounce cracker
Fats	As needed to meet calorie needs. Use in moderation
Provide vitamin A and essential fatty acids	Fats occur normally in foods such as meat, poultry,
Sources:	and dairy products.
Butter, margarine, oils, bacon, salad dressings,	• •
olives, avocados	
Fluids	Drink 8 glasses of liquids each day. Avoid drinks
	high in sugar and caffeine.
	Don't drink any alcoholic beverages.

#### Daily Food Guide for Pregnant Women

### **PREGNANCY NUTRITION DIET**

#### (Sheet 4 of 4)

SAMPLE MENU		
Suggested Meal Plan	Suggested Foods and Beverages	
BREAKFAST		
Citrus Fruit or Juice	Orange Juice	
Cereal	Oatmeal	
Meat or Meat Substitute	Scrambled Egg	
Bread/Margarine	Whole Wheat Toast/Jelly/Margarine	
Milk/Beverage	Skim Milk, Decaffeinated Coffee	
<b>DINNER - NOON OR EVENING</b>		
Meat or Meat Substitute	Baked Chicken	
Potato/Substitute	Sweet Potato	
Vegetable and/or Salad	Green Beans, Coleslaw	
Dessert	Strawberries	
Bread/Margarine	Whole Wheat Roll/Margarine	
Milk/Beverage	Skim Milk, Water	
AFTERNOON SNACK		
Milk/Fruit	Fruited Yogurt	
SUPPER - EVENING OR NOON		
Soup or Juice	Vegetable-Bean Soup	
Meat or Meat Substitute	Meatballs with Tomato Sauce	
Potato/Substitute	Spaghetti	
Vegetable and/or Salad	Spinach Salad with Dressing, Zucchini	
Dessert	Rice Pudding	
Bread/Margarine	Garlic Bread	
Milk/Beverage	Skim Milk, Decaffeinated Iced Tea	
EVENING SNACK		
Milk, Bread, Fruit	Peanut Butter, Whole Wheat Toast	
	Apple Juice	

#### **Nutrient Analysis**

Calories	2563 Kcal	Vitamin A	4631 IU	Calcium	1741 mg
Protein	130 gm	Vitamin C	209 mg	Phosphorus	2332 mg
Carbohydrate	355 gm	Niacin	29 mg	Zinc	7 mg
Fat	76 gm	Riboflavin	3.0 mg	Iron	19 mg
Cholesterol	427 mg	Thiamin	1.7 mg	Sodium	4637 mg
Dietary Fiber	34 gm	Folate	392 mcg	Potassium	5473 mg

Adapted from the Arizona Diet Manual (revised 1992)