

There is a lot you can do to improve your chances of having a healthy baby. Eating right while you are pregnant can make a big difference in your health. What you eat helps determine how your baby grows and develops. It is never too late in pregnancy to improve your eating habits, since your baby will benefit whenever you make the needed improvements, even in late pregnancy. In fact, your baby's requirements for iron, protein, and calcium are greatest in the last 8 to 12 weeks of your pregnancy. During pregnancy most women should gain between 25 and 35 pounds. Weight gain in pregnancy is not the same thing as "getting fat". Gaining weight is a positive, healthy sign that you're giving your baby what he or she needs to develop.

Women who are underweight during pregnancy are more likely to have small babies. Babies who have a low birth weight (less than 5 1/2 pounds) have more problems at birth adjusting to life outside of mom. Labor is not made easier because your baby is small or underweight. If you eat well and gain weight as you should while you're pregnant, chances are that your baby will gain weight and develop properly, also.

### HOW MUCH EXTRA DO I NEED?

The average pregnant woman will need to add about 300 calories each day to her daily food intake in the second trimester and 400 calories in the third trimester. Three hundred calories is not really that much. Two tall glasses of milk, a bowl of hearty soup, a serving of lean meat, or three tablespoons of peanut butter are each about 300 calories.

If you have heartburn or feel queasy, you may feel better if you eat 4 to 6 small meals each day. Eat and snack wisely on foods that will provide your baby with needed nutrients. Milk, cheese, yogurt, fruit and vegetables are good, healthy snacks. Try not to add lots of high-calorie, non-nutritious foods such as candy, cake, cookies, pastries, potato chips, french fries and soda. These foods have lots of calories but few vitamins or minerals.

### WHAT TO AVOID

Listeria is a bacteria that can be harmful to pregnant women and their baby. Avoid foods with a high risk of listeria contamination. These include:

- Hot dogs, lunch meats, or cold cuts served cold or heated to less than 165 degrees (heat these meats to over 165 degrees and eat right away to be safe);
- refrigerated pâté and meat spreads;
- refrigerated smoked seafood;
- raw (unpasteurized) milk;
- unpasteurized soft cheeses, such as feta, queso blanco, Brie and blue veined cheeses; and
- unwashed raw products (when eating raw fruits and vegetables, skin should be washed thoroughly in running tap water, even if it will be peeled or cut).

Pregnant women should not eat certain kinds of fish because they contain high levels of mercury that can be harmful to the developing baby. Avoid eating shark, swordfish, king mackerel, or tilefish. Albacore tuna is also high in mercury so you may want to choose canned chunk light tuna instead. Limit other types of fish or shellfish to two meals per week. Check local advisories about fish caught in local rivers. If there is no advice about them, it may be safe to eat one meal per



week of fish caught locally. If you eat local fish, eat no other fish that week.

Check with your doctor before taking fish oil or any other supplements while pregnant. Although seafood is a great source of protein, raw seafood such as sushi can be a source of harmful parasites and bacteria. Unless you know your local streams, bays, and lakes are unpolluted, avoid eating fish you catch yourself.

Avoid raw eggs due to the risk of salmonella.

Fresh-squeezed juice in restaurants, juice bars, or farm stands may not be pasteurized to protect against harmful bacteria, including salmonella and E. coli. Pregnant women should opt for juice that is pasteurized.

Follow the 2-hour rule: Don't eat potluck dishes that have been sitting at room temperature for longer than 2 hours. When temperatures are above 90°F, the cutoff should be 1 hour.

## TOBACCO

Smoking is strongly discouraged during pregnancy. Studies have shown a link between maternal smoking and negative effects on the newborn such as growth restriction, placental problems, premature rupture of membranes, low birth weight and SIDS. If you or those around you smoke, try to quit or reduce your exposure to tobacco.

## PROTEIN

All cells are formed from protein. During this period of rapid growth - of baby, placenta, uterus, breasts, blood and amniotic fluid - your protein

requirements are higher than usual. You should eat about 60 grams of protein each day. Choose meat and protein food such as beef, lamb, pork, liver, chicken, turkey, fish, eggs, beans, tofu or peanut butter. Limit high fat and processed meats such as hot dogs, bologna, sausage, spare ribs, corned beef hash and bacon.

## CALCIUM

Calcium gives your baby strong bones and teeth and is especially important during the last trimester when skeletal growth is most rapid and teeth are forming. Good sources of calcium are milk and milk products, cheese, broccoli, almonds, dried peas, beans, tofu and fish with bones.

## IRON

Iron is needed to help make rich blood. Your blood volume increases by more than 30 percent during pregnancy. Foods that are rich in iron include: liver, red meat, dried fruit, whole-grain bread, enriched cereal, dried peas and beans, egg yolks, broccoli, kale, collard greens, walnuts and black-strap molasses.

## FOLIC ACID

Folic acid helps you and your baby make new cells. You need twice as much folic acid as you did before you were pregnant. The best sources of folic acid are: liver, eggs, broccoli, kale, collard greens, yeast, dried peas and beans, whole-grain breads, nuts, fruits, vegetables and orange juice. It is difficult to get all the extra folic acid from your diet. You may need a vitamin supplement to get all the extra vitamins and minerals you need.

## WHAT TO DRINK?

Your body needs lots of fluids when you are pregnant. Drink eight glasses of fluid every day. Water, milk and fruit juice are good choices. Caffeine is found in tea, coffee, soda and chocolate. Too much caffeine may not be safe for your baby. Drinking beer, wine or hard liquor when you're pregnant can harm your baby. We don't know how much alcohol is safe. The best decision is not to drink alcohol at all.





Notify your doctor if you notice any of the following:

WARNING SIGNS	POSSIBLE PROBLEMS
Vaginal bleeding	Miscarriage, problem with the placenta, preterm labor
Severe abdominal pain	Miscarriage, placental problem, preterm labor contractions, ectopic pregnancy
Continuous severe headaches	Preeclampsia
Visual disturbances, dimness, blurring, flashes of light or spots	Preeclampsia
Sudden swelling of the hands, face or feet	Preeclampsia
Sudden leaking or gushing of fluid from the vagina	Rupture of membranes
Fever - temperature over 100 degrees	Infection
Burning or pain on urination	Urinary tract infection, sexually transmitted disease
Irritating vaginal discharge, itching	Vaginal infection, sexually transmitted disease, genital sores
Persistent vomiting	Morning sickness, infection
Absence of fetal movement	Fetal distress
Painful, reddened area in leg	Thrombophlebitis
Continual or intermittent abdominal tightenings, cramping or contractions at a rate of 4 or more per hour	Preterm labor

Contractions may feel like cramps in the lower abdomen, like a low dull backache felt below the waistline or they may feel like pressure in the pelvis, as if the baby is pushing down. Contractions may come and go or they may be constant. If you experience cramping before 37 weeks of pregnancy, please notify your doctor.



# COMMON DISCOMFORTS OF PREGNANCY

Baby

## WHERE DOES THE WEIGHT GO?

Baby .....	7 1/2 pounds
Maternal stores .....	7 pounds
(fat, protein, and other nutrients)	
Tissue fluid .....	4 pounds
Blood Volume.....	4 pounds
Breasts .....	2 pounds
Uterus .....	2 pounds
Amniotic Fluid.....	2 pounds
Placenta .....	1 1/2 pounds

But what about the maternal stores of fat. Do I have to gain that? It is not possible to gain only the weight necessary for the baby and the placenta and avoid the fat. The fat is not the last 5 pounds you gain. Fat is produced gradually along with the other things needed for a healthy baby. Trying to avoid the fat may deprive you or your baby of essential nutrients.

## WHEN WILL I LOSE THE WEIGHT?

Never try to lose weight during pregnancy. Wait until after your baby is born. You will lose 12 to 14 pounds in the first week after your baby is born. The rest of the weight will usually be lost within one year with healthy eating and lots of activity. Breastfeeding promotes the loss of these extra pounds. The stored fat provides calories used for milk production.

## COMMON DISCOMFORTS OF PREGNANCY

As your baby grows, you may experience some discomforts related to pregnancy. The experience of pregnancy varies greatly from woman to woman. You may have some of these discomforts and be anxious for relief, or you may not be bothered at all by the common discomforts of pregnancy.

### NAUSEA

- Eat 4 or 5 small meals a day
- Don't let your stomach become empty
- Eat crackers before arising
- Eat a well balanced diet - especially B vitamins

### FATIGUE

- Listen to your body and rest!



### HEARTBURN

- May result from decreased gastric motility and pressure from the baby on the stomach and intestines.
- Eat 4-6 small frequent meals
- Sleep with your head elevated
- Avoid greasy, fried, and spicy foods

### URINARY FREQUENCY

- Caused by pressure of the growing baby
- If leaking urine when laughing or coughing is a problem, Kegel's exercises or pelvic floor contractions may help
- Some say the frequent night trips to the bathroom prepare you for being up with baby at night after your baby is born!

### VARICOSE VEINS

- Varicose veins are enlarged veins whose walls have thinned and stretched
- Blood return from the legs is poor during pregnancy partly because of uterine pressure on blood vessels
- Avoid prolonged standing if possible
- When standing shift weight from one foot to the other
- Sit with your legs elevated when possible
- Avoid crossing your legs at the knee when sitting
- Avoid constrictive clothing
- Wear support hose - put them on before getting out of bed in the morning
- Improve circulation by walking or doing ankle exercises



## BACKACHE

- Can be caused by poor posture, increased breast size or muscles and ligaments relaxing in preparation for birth
- Make an effort to maintain good posture at all times
- Be careful lifting or picking anything up from the floor. Squat down to reach anything low, bending at your hips and knees, not your waist
- Wear low heeled shoes
- Pelvic rocking is an exercise that may help, particularly on hands and knees in the “angry cat” position
- Shoulder rolling may help ease upper backache discomfort - rest your fingertips on your shoulders and rotate your elbows back

## NUMBNESS IN FINGERS AND ARMS

- Try arm circles or shoulder rolls - raise your shoulders toward your ears, then slowly roll them forward, down, back and up again
- Try holding your hand above your head for a few minutes and flex then extend your fingers

## HEAVINESS IN PELVIS

- Caused by pressure as baby descends in pelvis
- Do Kegel exercises or pelvic floor contractions
- Rest on your side

## SUDDEN GROIN PAIN

- Sudden movement which puts pressure on the stretched round ligaments supporting the uterus is usually the cause of this pain. Although harmless it can cause discomfort. This may occur when you stand up quickly, or when you sneeze, cough or laugh.

- Avoid sudden movements especially moving from a lying to a standing position too quickly
- If you anticipate a sneeze or cough, bend or flex your hips to reduce the pull on these ligaments
- To help ease the discomfort bend toward the point of pain, placing your hand on the spot that hurts, to allow the ligaments to relax

## LEG CRAMPS

- Cramps in the calves or feet commonly occur in late pregnancy when you are resting. These cramps can be caused by muscle fatigue, pressure from the uterus on the nerves and vessels going to the legs, chilling, tension, or a calcium-phosphorus imbalance in your body.
- Avoid pointing your toes like a ballet dancer
- Do not stand in one place for too long
- When standing shift your weight from one foot to the other
- Elevate your legs often and try a warm bath at bedtime
- When you have a cramp, pull your toes up toward your face and straighten your knee, or stand on your cramped leg and bend your knee while keeping your heel on the ground
- Massage the leg to increase oxygen to the muscle
- A hot water bottle or heating pad may help

## CONSTIPATION

- During pregnancy the movement of food through the intestines is slowed. Also pressure from the growing baby and uterus crowd the digestive organs increasing the problem.
- Drink plenty of fluids daily (8 glasses) especially water and juice.
- Eat fresh fruits and vegetables daily
- Eat plenty of whole grain breads and cereals
- Get plenty of exercise, especially walking
- Talk with your doctor if you still need help - Do not take laxatives without your doctors approval

## HEMORRHOIDS

Hemorrhoids are varicose veins of the rectal area. Just like legs are more prone to varicose veins during pregnancy, so are veins of the rectum.

## AVOID CONSTIPATION

Don't strain when having a bowel movement. Try sitting with your feet on a step stool when on the toilet.

- Do Kegel exercises regularly
- Soak in a warm tub
- Apply witch hazel soaks (Tucks) to the hemorrhoids
- Avoid long hours of sitting or standing, lie down on your side several times a day, watch TV and read in this position

## VAGINAL DISCHARGE

- It is normal to have a thin, milky, mild smelling discharge during pregnancy. You may notice an increase at the end of your pregnancy.
- It is not normal if it is yellowish, greenish or thick and cheesy, profuse, irritating, itching or has a bad odor. These are signs of an infection and you should notify your doctor.
- Good hygiene is important during pregnancy, rinse well after a bath or shower and avoid irritants such as deodorant soaps, bubble baths and perfumes. Do not douche unless your doctor has instructed you to do so.
- Wear 100% cotton underwear to help stay dry

## SWELLING OF ANKLES AND FEET

- Some swelling during pregnancy is normal, It is particularly common late in the day, in warm weather or after standing or sitting for a long time
- Walk - avoid standing still
- When sitting, rotate your feet at your ankles, and do not cross your legs at the knees
- Rest frequently during the day. Elevate your legs or if possible lie down on your side
- Wear support hose - put them on in the morning before you get out of bed
- Call your doctor if the swelling is severe and does not go away or if your hands and face become swollen suddenly.

## DIFFICULTY SLEEPING

- This is especially common in late pregnancy
- It may result from discomfort or anxiety
- Take a brisk walk each day - a great tension reliever
- Drink a glass of warm milk

- Try a luxurious warm bath at bedtime
- Listen to soothing music
- Get a massage
- This is the perfect time to practice relaxation exercises
- Try reading a dull book
- If awake in the middle of the night try deep relaxing breathing, concentrating on your baby and releasing all of your muscles. Read a relaxation exercise. If you don't feel sleepy at all don't fight it, get up and read or do some other quiet activity until you feel more tired.





A comfortable pregnancy is dependent upon good posture and body mechanics. Body mechanics means the safe and efficient performance of everyday tasks. By observing the following principles, you can perform your daily routine with the least strain and effort; you can also reduce fatigue and common aches and pains.

## POSTURE

During pregnancy as you gain weight and your body changes shape, you must adjust your posture to maintain alignment and balance. Frequently bad posture is assumed, which can cause back, neck, and rib pain. By standing and sitting using good posture you can reduce many of these discomforts.

You can improve your posture by standing as tall as possible. Imagine a string attached to the top of your head, pulling it toward the ceiling. If you hold your head high, the rest of your body usually aligns itself properly. Wearing flat or low-heeled shoes also helps. Check the following list for signs of good posture.

Stand tall with:

- Head high
- Straighten neck, tuck chin in
- Shoulders relaxed, down and slightly back
- Abdominal muscles firm
- Back slightly curved, avoid swayback
- Buttocks tucked under
- Knees soft, relaxed, not locked
- Feet supporting body weight evenly through center of each foot



## STANDING

When standing for long periods of time shift your weight from leg to leg, rotate your feet in small circles, or rock back and forth from toes to heels. This helps blood return from your legs. Alternate putting one foot and then the other up on a low stool to help prevent backache.



## SITTING

Avoid sitting for prolonged times especially later in pregnancy because this impairs the blood return from your legs. Particularly avoid crossing your knees. Rotate your feet and ankles to facilitate blood return. Sit with your feet up and calves supported whenever possible. If you are sitting in a “slouched” position, your ribs press down on your uterus, leading to discomfort and difficulty breathing. Try sitting in a straight backed chair rather than a soft or deep chair. A small pillow in the small of your back may provide additional comfort.

## LIFTING

During pregnancy you are more likely to injure your back due to your relaxed ligaments and joints. It is important to follow proper technique when lifting objects of any weight. Squat down to reach anything low, bending at your hips and knees, not your waist. Get as close to the object as possible, grasp it firmly, and hold it close to your body. Stand up by straightening your legs, still keeping your back straight.

## CHANGING POSITIONS

If you get up from the floor when lying down by suddenly jerking to sit-up you may strain your abdominal and low back muscles. To get up properly from lying down on the floor, first roll onto your side and bend your hips and knees. Using your arms, push the top part of your body to an upright position. Next get onto your hands and knees. Put one foot out in front, while keeping the other knee on the floor. Stand up using your leg muscles. You can push off your forward knee or use another stable object for balance.





Exercise is important throughout pregnancy and after the birth of the baby. It helps to reduce stress during pregnancy, conditions muscles for labor and birth, restores tone after birth and also decreases musculo-skeletal pain. Before beginning an exercise program during or after pregnancy, consult your obstetrician. Exercise during pregnancy should be performed with caution and should not cause skeletal pain or abnormal responses.

Normal responses to exercise:

- Increased heart rate....your obstetrician can help you determine what is a safe elevation for you.
- Increased rate of breathing
- Increased temperature
- Some muscle soreness, not severe pain.

## GUIDELINES FOR EXERCISE

Adapted from the American College of Obstetricians and Gynecologists

- Regular exercise (at least three times per week) is better than heavy activity followed by a long period of rest.
- Hard exercise should not be performed in hot, humid weather or when you have an illness such as a cold or flu.
- Avoid jerky, bouncy or high impact movements. Activities that require jumping, jarring motions, or rapid changes in direction may cause pain. Be sure to wear good shoes and a support bra.
- Avoid deep knee bends, full sit-ups, double leg raises, and straight leg toe touches. During pregnancy, these exercises may injure the tissues that connect your leg and back joints.
- Do not do exercises that require you to lie on your back longer than a few minutes after 20 weeks of pregnancy.
- Begin exercise session with a 5 minute warm-up. Intense exercise should not last longer than 15 minutes. End exercise session with a 5-10 minute cool down.
- To avoid injuring tissues that are relaxed from pregnancy, stretching should be done gently.
- The extra weight you are carrying will make you work harder as you exercise at a slower pace.
- Get up slowly from the floor to avoid dizziness or fainting. Once you are standing, walk in place for a few minutes.
- Women who did not exercise before becoming pregnant should begin with light exercise and gradually move to more intense exercise.
- Stop your activity and consult your doctor if any of the following symptoms occur:
  - pubic pain
  - rapid heart rate
  - extreme shortness of breath
  - pain (other than normal muscle soreness)
  - irregular pulse
  - faintness
  - difficulty walking
  - any unusual symptoms

- Almost any exercise is safe during pregnancy if it is done in moderation.
- Walking is good exercise, especially if you were not active before becoming pregnant.
- Swimming can be continued if you were used to this before pregnancy. It uses many different muscles while the water supports your weight. Avoid diving in the last months of pregnancy. Scuba diving is not recommended during pregnancy.
- Jogging can be done in moderation if you were used to jogging before you became pregnant. Avoid becoming overheated, stop if you are feeling uncomfortable or unusually tired, and drink water to replace what you lose through sweating.
- Tennis is generally safe if you did this before pregnancy. Be aware of your change in balance and how this affects quick movements.
- Golf and bowling are fine for fun activities, but don't strengthen the heart and lungs. Your balance may change because of the extra weight of pregnancy.
- Snow skiing, water skiing and surfing pose some risk. You can hit the ground or water with great force, and taking a fall at such fast speed could harm your baby. Talk to your doctor before participating in any of these activities.

## KEGEL EXERCISES

The pelvic floor muscles are attached to the insides of the pelvic bones and act like a hammock to support your pelvic organs. During pregnancy these muscles may sag in response to the increased weight of your uterus. Exercising pelvic floor muscles maintains tone and improves circulation. This can help reduce the heavy, throbbing feeling that you might experience during pregnancy. Strengthening these muscles can help reduce problems with urine leaking. Since the pelvic floor muscles are stretched during birth doing Kegels or pelvic floor contractions after birth can help restore tone. Women should continue doing these exercises to maintain tone throughout life.

To identify the correct muscles, sit on the toilet and begin to urinate, contract the muscles necessary to stop the flow of urine, hold briefly and release. After you have identified the correct muscles do not practice while urinating. Practice the Kegel exercise when your bladder is empty at a regular time every day such as when you brush your teeth.

The following are different ways to do Kegel exercises:

1. Elevator Exercise - Imagine that your pelvic floor muscles are an elevator and gradually contract them as the elevator goes up to the first floor, second floor, third floor, fourth floor and finally the fifth floor. Slowly release the tension down to the fourth floor, third floor, second floor, first floor and basement. To finish, contract back to first floor. The basement is where you want these muscles when you give birth.
2. Extended Kegel - Contract the pelvic floor muscles and hold for up to 20 seconds. Then relax. At first you will probably notice the contraction fading even though you have not deliberately let go. Simply tighten the muscles whenever you feel this "letting go." Do 3 to 5 times twice a day.

## PRE-NATAL EXERCISES

### HAMSTRING STRETCH

Sit with one leg stretched forward and the other leg bent. Gently lean forward from the hips. Hold for one minute. You can put a towel around the foot and pull your toes up for more of a stretch. You should feel a stretch in the back of the leg behind the calf and thigh.



### CALF STRETCH

Stand facing the wall with one leg in front and one leg behind. Keeping toes pointed forward, lean towards wall bending front knee. DO NOT bounce!! You should feel a stretch in the calf of the back leg. Hold for 2-3 minutes. \*This stretch can aid in decreasing leg cramps. Consult your obstetrician if further problems with leg cramps occur.



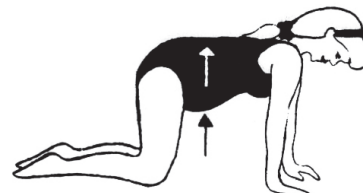
### UPPER ARM STRETCH

Stand with arms clasped behind your back. Do not bring head forward. As you breathe in, raise hands up. Breathe out as you lower hands. You should feel a stretch in the muscles in front of the shoulders. Do 10 times.



### PELVIC TILT ON HANDS AND KNEES

Purpose: Relieves pressure of baby on lower back. Stretches lower back and provides some abdominal strengthening. Helps to change baby's position. Assume hands and knees position with back flat. Tighten stomach muscles and round back up toward ceiling. Hold 10 seconds for 10 repetitions.





## PELVIC TILT STANDING

Purpose: Stretch lower back, improve posture, strengthen abdominals. Stand with knees slightly bent and tighten stomach making back flat. (May be done against a wall.) Hold for 20-30 seconds. Repeat 10 times.



## TAILOR PRESS

Purpose: Stretch muscles on insides of legs. Sit on floor with feet together as shown. Push knees slowly toward floor until gentle stretch is felt. DO NOT BOUNCE KNEES!! Hold for 10 seconds and repeat 10 times.



## WALL SQUAT

Purpose: Strengthen legs. Hold standing pelvic tilt with back against wall. Feet should be shoulder width apart and approximately 1-2 feet from wall. Squat down, keeping knees over toes. You should feel strengthening in thighs. Do 10 times, holding each one for 15 seconds.

