

# General Care and Activity During Pregnancy

## Exercise and sports

Exercise is essential for continued good health and is also an excellent way to prepare your body for the “labor” of giving birth.

Pregnancy is often used as an excuse for getting out of shape and allowing your muscles to lose their tone. However, getting involved in a regular exercise program helps you to feel good about yourself. Exercise often reduces aches and pains (especially in the back and legs) by improving your muscle tone and helping you to adjust your posture to accommodate your growing belly.

Weight gain and figure changes are inevitable now, but it will be much easier in the postpartum months to get your non-pregnant shape back (or even improve it) if you stay active and physically fit. If you are planning to start an exercise program now, start with short periods of simple, relaxing warm-up exercises. Very gradually, increase the complexity of the exercises as well as the length of exercise time.

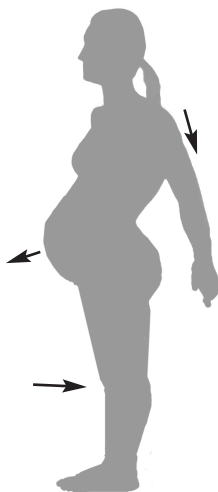
If you dislike exercising alone or need group motivation, investigate prenatal exercise programs offered by groups such as the YMCA or the Southern New Hampshire Rehabilitation Center. The class should be specifically designed for pregnant women, and the instructors should be knowledgeable about the differences between pregnant and non-pregnant women. Avoid health clubs that tell you to “do what you’re comfortable with”; this puts you in charge of designing your exercise program.

We suggest that you read *Essential Exercises for the Childbearing Year* by Elizabeth Noble. This book will also be a valuable help when toning up after you have delivered.

## Posture check

Using correct posture during pregnancy can prevent or alleviate a lot of the discomforts. Stand tall, with your toes pointing forward. Keep your neck straight and your chin down. Keep your shoulders back to lift the rib cage. This makes breathing easier. Contract your abdominal muscles to straighten your back. Tuck your buttocks under and tilt your pelvis forward to support the weight of the baby and growing uterus. Bend your knees slightly to distribute your weight evenly.

**Incorrect posture**



**Correct posture**



## **Exercise guidelines**

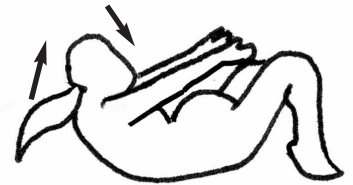
We want to stress that pregnancy is not an illness and is not a reason to give up most sports and athletic activities you normally enjoy. Under normal circumstances, women can follow these recommendations from the American College of Obstetricians and Gynecologists 1994 technical bulletin about exercise in pregnancy and postpartum:

- *Pregnant women can continue to exercise and obtain health benefits even from mild-to-moderate exercise routines. Exercising at least three times per week is preferable to intermittent exercise.*
- *After the first 13 weeks, women should avoid exercise which requires them to be flat on their backs. This position is associated with decreased blood flow to the uterus. Pregnant women should also avoid prolonged periods of motionless standing.*
- *Although “there are no data in humans to indicate that pregnant women should limit exercise intensity and lower heart rates because of potential adverse effects,” women should be aware that their bodies have decreased oxygen available for aerobic exercise during pregnancy.*

*This means that pregnant women must control the intensity of a workout based on how they feel. They should stop exercising when tired, and not exercise to the point of exhaustion. Keeping the heart rate under 150 beats per minute will ensure that you don't overdo it. Non-weight bearing exercises such as swimming and cycling are good choices because they minimize the risk of injury and are more likely to be continued throughout pregnancy.*
- *Body changes can make certain types of exercise dangerous during pregnancy, especially in the last three months. Avoid exercises where loss of balance is a hazard to the mother or fetus. Also, avoid any exercise where there is potential for even mild abdominal trauma.*
- *Pregnancy alone requires an additional 300 kcal/day; therefore, women who exercise during pregnancy should be even more careful to eat a healthy diet. Women who don't maintain an adequate weight gain may need to cut back on their exercise routines.*
- *Pregnant women who exercise during the first 13 weeks must be careful to help their bodies to stay cool by dressing appropriately, drinking enough liquids, and not exercising in extremely hot conditions.*
- *Many of the body changes of pregnancy persist from 4 to 6 weeks postpartum, so pre-pregnancy exercise routines should be resumed gradually, based on the individual woman's capability.*

In addition to these general exercise guidelines, we also have specific recommendations based on questions our patients have raised over the years:

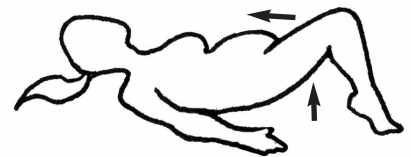
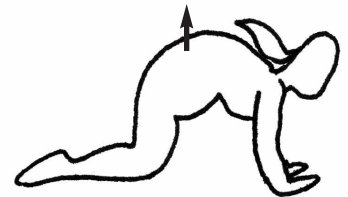
- *While pregnancy is not a time for novices to attempt to master new sports and athletic activities, brisk walking and swimming are excellent ways to tone up your entire body, and can be started during pregnancy.*
- *If you are spotting or bleeding vaginally, do not exercise or participate in an athletic activity until you have checked with us. In addition, certain complications of pregnancy may occur which will cause us to request that you modify or limit your activity.*
- *Warm-up exercises, safety equipment, good shoes, and a firm support bra are more important than ever during pregnancy.*
- *It is generally safe to lift up to 25 pounds during pregnancy. If you are an experienced weight lifter and feel that you are capable of lifting more, please discuss this with us on an individual basis.*
- *"Curl-up" style sit-ups can be done safely during pregnancy. With your knees bent, bring your chin to your chest and raise your shoulders off the ground. Alternate your curl-ups with side-lying exercises.*
- ***Never push yourself to maximum effort, or allow yourself to get over-tired.** You can usually tell what you should or shouldn't be doing by the way you feel. A muscle "stitch" or spasm indicates inadequate blood supply to that working muscle, and is a signal for you to slow your pace and rest for a while.*
- *If an activity causes pain or excessive fatigue, stop immediately and rest. If on another day you get a similar reaction, it's time to switch to a less strenuous activity. Discuss persistent problems with us.*
- *Use pelvic tilts to relieve back discomfort in pregnancy.*
- *Regular strenuous exercise such as jogging or tennis requires eating more calories to enable you to continue to gain weight as your pregnancy advances. If weight gain is compromised, we encourage you to reduce your activity.*
- *As your baby gets bigger, beware that your center of gravity will shift, making balance and coordination more difficult. This can make sports such as cross-country skiing, skating, and bicycling more hazardous.*
- *Excessive twisting and bending should be avoided because of the stress on your back muscles.*
- *Water-skiing, jet skiing, surfing, and high diving should be avoided because of the possibility of taking a spill that might force water into the vagina.*
- *Motorcycling, snowmobiling, and downhill skiing are dangerous anytime, and are particularly unsafe for a pregnant woman.*



"Curl-up" style sit-ups



"Diagonal curl" sit-ups



Pelvic tilts



Bridging

### **Kegel's exercises**

These exercises were developed by Dr. Arnold H. Kegel to strengthen the pelvic floor muscles, especially the pubococcygeus muscle, which runs from the pubic bone to the coccyx (tailbone). Although they are of some use during pregnancy, the main use of Kegel's exercises is to help get the pelvic floor muscles back into shape after the delivery. If you practice "Kegel's" during pregnancy, you will be better able to do the exercises in the postpartum period, thereby getting your pelvic floor muscles back into shape that much more quickly.

Because there are several different muscles in the pelvis, it is important to identify the pubococcygeus muscle. To do this, urinate with the knees widely separated. Once the flow of urine has started, make an effort to stop the flow. The muscle that you feel contracting is the pubococcygeus. After doing this a few times, most women can repeat the contractions at any time, anywhere.

Although most women who have taken childbirth classes know what a "Kegel's" is, many are not aware of the rather rigorous schedule of exercise recommended by Dr. Kegel. According to his recommendations, you should at first perform ten contractions in a row, at six intervals during the day (a total of sixty). Each contraction should be held for 2-3 seconds, and you should rest 2-3 seconds between contractions. After approximately a week, the exercises should be increased to twenty contractions six times a day (a total of 120 a day), then gradually increased until 300 contractions are performed daily by about the 6th week. This level should be maintained for eight to ten weeks.

After this period of time, the pelvic floor muscles will usually remain in a state of partial contraction, and only occasional contractions will be needed to maintain muscle tone.

Uro-gynecologists sometimes recommend an alternative schedule for Kegel's exercises. Once you've identified the correct way to do a Kegel's, contract the pubococcygeus for 5 seconds, then rest for 20 seconds. Do a set of 10 repetitions, 4 times each day. You may find them easier to remember if you do a set with each meal, and at bedtime.



# Daily Food Guide For Pregnancy

Food Groups	# Servings Daily	Serving Size	Essential Nutrients
<b>Breads, Cereals, Rice, Pasta &amp; Starchy Vegetables</b>	<b>6 to 11 servings</b>	1 slice bread (whole grain) 1 oz. ready-to-eat cereal 1 oz. hamburger or hot dog roll 1/2 cup cooked cereal or grain (rice, pasta, grits) 3-4 small crackers 1 pancake or waffle (4") 3 Tbs. wheat germ 2 medium cookies 1/2 cup potato, corn, peas	fiber iron folic acid (found mostly in fortified grains) thiamin
<b>Vegetables</b>	<b>3 to 5 servings</b> <i>(preferably 4 or more)</i>  <i>Eat at least 1 serving of dark green, yellow, red, or orange vegetables each day for folic acid</i>	1/2 cup cooked vegetables 1/2 cup vegetable juice 1 cup raw, leafy vegetables	fiber vitamins C and E folic acid beta-carotene
<b>Fruits</b>	<b>2 to 4 servings</b> <i>(preferably 3 or more)</i>  <i>Include a dark green, orange, or red fruit daily, as a good source of vitamin C. Bananas are a good source of vitamin K</i>	1 medium fruit 3/4 cup juice 1/2 cup cut fruit 1/4 cup dried fruit	fiber folic acid beta-carotene vitamin C vitamin K
<b>Milk, Yogurt, and Cheese</b>	<b>4 servings</b>  <i>Choose low-fat versions (less than 3 grams fat/serving)</i>	1 cup of milk or yogurt 1 cup soy milk (fortified) 1 1/2 oz. natural cheese 2 oz. processed cheese 1 1/2 cup lowfat ice cream or frozen yogurt	calcium protein vitamin D vitamin B12 vitamin B6
<b>Protein (Meat, Poultry)</b>	<b>3 to 4 servings</b>  <i>Lentils, beans, peas, skinless chicken, seafood, egg whites or 90% lean beef will help you get your protein without all the added calories from fat. (Dairy products are also good substitutes)</i>	2 eggs 1/2 cup egg substitute 2 oz. chicken, beef, turkey, fish 1 cup cooked lentils, beans, peas 2/3 cups nuts 2 tablespoons peanut butter 1 cup calcium-fortified tofu 1/2 cup cottage cheese 2 oz. natural cheese	protein vitamin B6 vitamin B12

**Fat** is essential on a daily basis to provide the necessary material for the proper development of the baby's brain and central nervous system. It is also important for transporting certain vitamins that are necessary for healthy babies.

Remember, however, that many foods use fat for preparation and are a hidden source of fat. Limit yourself to 4-6 servings of fat/day during pregnancy to stay healthy.

A serving is 1 teaspoon of mayonnaise, oil, butter or margarine, or 1 tablespoon of salad dressing

**Sweets/Junk Food:** Limit this group to 2 times/week. These foods are usually a major source of calories, without nutritional value. In other words, they can fill you up and not leave room for the more nutritious foods that are so important for you and your baby.

When choosing foods from this group, choose the low-fat versions.

## Nutrition and weight gain

A balanced diet is especially important during pregnancy. Be aware that pregnancy is not the time to lose weight, and that it is normal and healthy for you and your developing baby if you gain approximately 30 pounds or more during your pregnancy.

Your weight gain will depend on several factors, such as your pre-pregnant weight and body build, the size of your baby and placenta, and your nutritional habits. If you are consistently eating a well-balanced diet, the *amount* gained is probably not as important as the *pattern* of weight gain. Ideally, if you are starting out at a normal weight for your height, you will gain about 3 pounds in the first 13 weeks and 1 pound per week for the remaining 27 weeks.

If you are underweight to begin with, we advise you to gain about 34 pounds; overweight women should gain approximately 20 pounds. Women carrying twins should gain at least 40 pounds.

If you have recently worked hard to lose weight or have always battled a tendency to gain weight, you might be uncomfortable with adding 4+ lbs. of fat. Relax! This is nature's way of giving you a small amount of reserve energy and a boost during the early weeks of lactation. This fat is produced gradually along with all the other items and cannot be avoided by simply limiting your weight gain to 20 instead of 30 pounds.

You will lose approximately 10-15 pounds immediately after your baby is born. Most women lose the remaining extra pounds gradually over a period of 3-6 months, if they eat sensibly. Your body will be encouraged to use some of the stored fat to supply the remaining calories needed while breastfeeding if you continue your pregnancy diet, adding only one additional dairy serving. Beginning a regular exercise program as soon as you can will also help tremendously.



### Why do we tell you to gain 30 pounds if the average newborn weighs 7-8 lbs.?

Baby.....	7 to 8 lbs.
Placenta.....	1.5 to 2 lbs.
Uterus.....	2.5 to 3 lbs.
Amniotic Fluid.....	2 to 3.5 lbs.
Breasts.....	1 to 2 lbs.
Blood Volume.....	3 to 4 lbs.
Fat.....	4 to 6.5 lbs.
Extracellular Fluid.....	4 to 6 lbs.
<b>Total</b>	<b>25 to 35 lbs.</b>

## Nutrition for two or more

Pregnancy is a time when optimal nutrition is important. It is not only important for your baby's growth and your body's stores, but it can also prevent health complications for your baby down the road. Poor nutrition during pregnancy, depending on when it occurs, can increase your baby's risk for heart disease, high blood pressure, diabetes, reduced intellectual ability, impaired immunity, and possibly obesity later in life.

Caloric needs do not increase significantly in the first trimester. You need about 300 extra calories per day during the second and third trimester of pregnancy. This is equivalent to an extra slice of bread, a 12 oz. glass of low-fat milk and an orange a day.

Your need for extra vitamins and minerals also increases in the second and third trimester. Vitamins and minerals help regulate metabolism, digestion, and oversee many body functions such as growth, oxygen transport, normal heartbeat, strong bones and teeth, just to name a few. By following the Food Guide For Pregnancy on page 12, you can be sure you are getting enough of the nutrients you and your baby need to be healthy.

Eating right during your pregnancy can improve your family's eating habits and health for a lifetime. If you would like assistance with nutrition and meal planning, please ask us.

## Fluids

Drink 64 oz. (eight cups) of fluid daily. Count water, milk or fruit juice as fluids. Coffee, tea and caffeinated sodas are not considered in the total fluid intake because of their diuretic properties. Fluid is important throughout pregnancy to maintain blood volume, which carries oxygen and nutrients to you and your baby. Remember that juices contain large amounts of natural sugar. Limit juice intake if you are gaining weight too quickly.

## Caffeine

It is recommended that you limit your caffeine consumption to 300 mg or less per day. Remember, caffeine-containing foods usually fill you up and may replace nutritious foods.

## Sodium

There is no need to restrict salt during normal pregnancy. However, the average American consumes more than the recommended 2.4 grams/day. Be aware of prepared foods, soups and canned vegetables: these foods are a major source of hidden sodium. To limit excessive salt intake, use fresh or frozen vegetables, double recipes and freeze them for later use.

## Artificial sweeteners

According to the FDA, sucralose (Splenda) is completely safe for consumption by pregnant and nursing women. Aspartame (NutraSweet or Equal) is fine to consume in moderate amounts (two 12 oz. cans of soda). The sweetener acesulfate potassium (Sunet) is found in baked goods, puddings, frozen desserts and sugar-free gelatins, and is also considered safe in moderate amounts. However, all other artificial sweeteners, such as saccharin, should be avoided.

## Herbal remedies

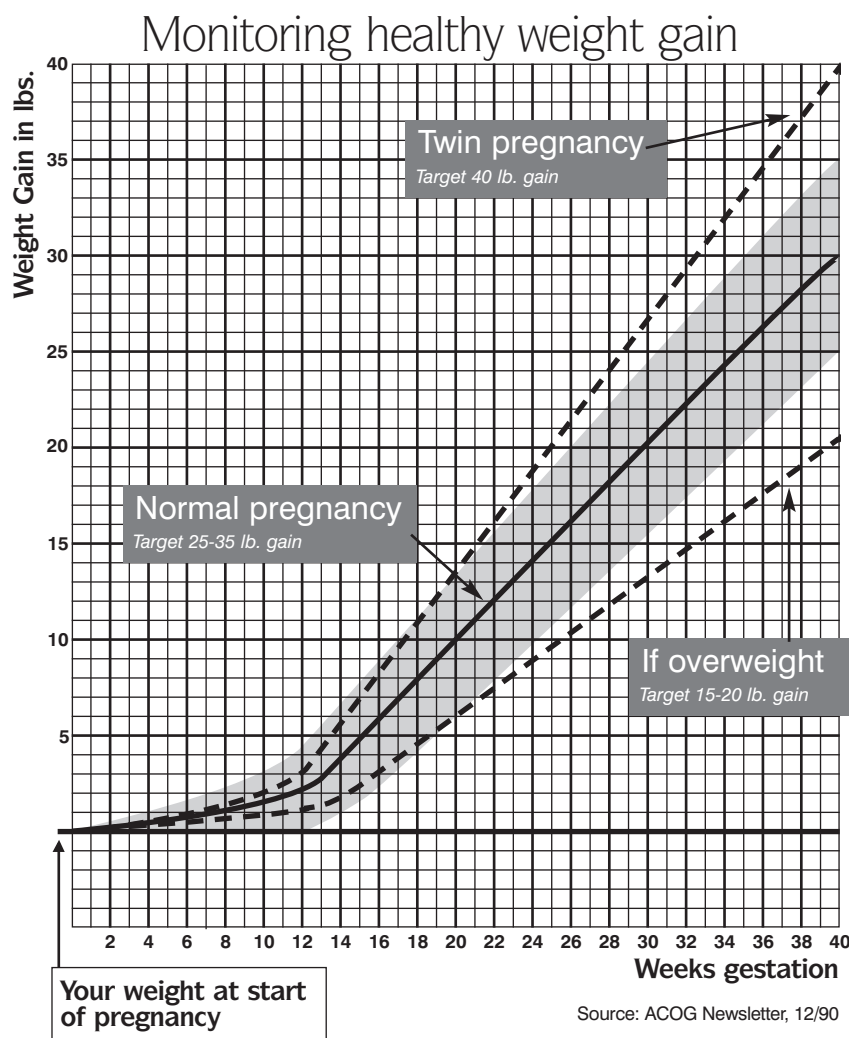
There are no reports in the scientific literature on the safety and effectiveness of herbs during pregnancy. As a result, it is impossible to make a recommendation about any of them. If you are taking herbal remedies it is best to stop them if you are pregnant, or consult with your provider.

## For assistance

Healthy eating may be expensive. If you have difficulty affording the amount or kinds of food necessary for a healthy pregnancy, apply for Food Stamps or food supplements offered by the WIC Program. For more information: in the greater Nashua area call 1-877-211-0723, or in the Manchester area call 1-800-322-1073.

## Caffeine content of common foods (in mg)

<b>Coffee</b>	Brewed, 8 oz.	60-180
	Instant, 8 oz.	30-120
	Decaffeinated, 8 oz.	1-5
	Espresso, 2 oz.	40-170
<b>Tea</b>	Brewed, 8 oz.	20-90
	Instant, 8 oz.	24-31
	Decaffeinated, 8 oz.	negligible
<b>Soft Drinks, 12 oz.</b>		35-54
<b>Chocolate Dark semisweet, 1 oz.</b>		5-35
<b>Coffee Ice Cream, 1 cup</b>		40-60



This graph shows how much weight you should be gaining throughout your pregnancy. A sudden large gain might signal fluid retention, and should be brought to our attention. A loss of weight might indicate the need for more calories; evaluate your diet.

## Dietary supplements during pregnancy

**Multivitamins** While many women expect prescription prenatal vitamins, research has shown that they are not necessary for women who eat well. However, if you are in the habit of taking a multivitamin, or have already purchased prenatal vitamins, it is safe to continue taking them. *Vegetarians however should take a daily multivitamin.*

Remember that no vitamin or supplement is a substitute for eating right during pregnancy, and that certain vitamins can actually be harmful to the fetus if taken in amounts that are too large. Vitamins can also cause nausea and constipation, especially in early pregnancy. If this happens, you should discontinue using them.

**Folic acid (folate)** is a B vitamin that is crucial during the first weeks of pregnancy, to decrease the risk of having a baby with spina bifida or other neural tube defects. For this reason, it is recommended that folic acid supplements be used *before conception*, through the first four weeks after conception. After the first four weeks, additional folic acid is not needed by women who otherwise eat well.

**DHA** is an omega-3 fatty acid which is thought to be important for fetal development of the fetal brain and eyes. Evidence is preliminary, but it has recently been recommended by some nutritionists that **pregnant and breastfeeding women consume 300 mg of DHA per day through diet or supplements.**

Low-mercury species of fish are good sources of DHA. These include canned light tuna, salmon, cod, halibut, sole, flounder, shrimp, herring and trout. Eating 12 ounces per week, or about 2 average servings, is recommended. DHA-fortified eggs and nutrition bars (such as *Oh Mama!*) are alternative dietary sources.

Supplements containing DHA can be used to meet the recommended 300 mg/day requirement, and should be started at 16 weeks, when you begin taking iron supplements (covered in the next section). Based on the amount of DHA in the supplement, you may need to take two or three capsules daily to consume the recommended daily amount. The graphic in the left margin lists some suitable brands for DHA supplements.

## Getting the iron you need

Iron is needed in large amounts during pregnancy, and even a well-balanced diet will not provide enough. Daily iron supplements (in addition to any vitamins you may be taking) are recommended for everyone, starting at about 16 weeks of pregnancy.

Iron supplements are available in a number of different formulations, but some are more likely to cause constipation or indigestion. The one *least likely to upset your system* is polysaccharide iron (150mg/day). Be sure to ask your pharmacist for the generic, which costs about \$14 for 100 tablets; brand name versions are simply more expensive. If polysaccharide iron is unavailable, carbonyl iron (50 mg/day) is the next best thing. *We recommend against taking other iron preparations*, which can cause more side-effects, may not be absorbed well, and can be

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### Iron-rich foods

<i>Serving size</i>	<i>Iron (mg)</i>	<i>Serving size</i>	<i>Iron (mg)</i>
3 oz. beef, tenderloin, broiled	3.1	1 baked potato	2.8
3 oz. sirloin beef, broiled	2.9	1/2 cup red kidney beans	2.6
3 oz. shrimp	2.6	1/2 cup enriched rice, cooked	1.1
3 oz. chicken or pork	1.0	1/2 cup seedless raisins	1.1
1/2 cup fortified cereal	2.9	1 slice whole wheat bread	0.9
1/2 cup boiled spinach	3.2		

## Sources of DHA

### Fish-oil capsules

Choose brands verified as safe by the U.S. Pharmacopeia ([www.usp.org](http://www.usp.org)).

These include *Berkley & Jensen*, *Equaline*, *Kirkland Signature*, *Nature Made*, and *Nutriplus*

### Vegetarian sources

Brands include *life'sDHA™* by Martek Biosciences ([consumer.martek.com](http://consumer.martek.com)) and *Omega-Zen-3®*, available as capsules ([NuTru.com](http://NuTru.com))

toxic to small children who may accidentally swallow some.

Calcium can block iron absorption, so be sure to avoid taking iron supplements with dairy products, calcium-containing multivitamins, calcium-fortified juice, or antacids. Also, iron should not be taken with Metamucil-type products, tea or coffee. Avoid taking thyroid medication within two hours before or after taking your iron supplement.

### Calcium

During pregnancy, 1200 mg/day of calcium is needed. However, it is not difficult to get this much calcium through diet alone, and most women do not need to supplement their calcium intake. Refer to the chart below for help selecting foods that will provide the calcium your body needs. If you find you are unable to consume the recommended four dairy exchanges per day, you can use over-the-counter supplements such as Viactiv or Tums to bring your consumption up the 1200 mg/day.

#### Calcium-Rich Foods

<i>Serving size</i>	<i>Calcium (mg)</i>	<i>Serving Size</i>	<i>Calcium (mg)</i>
milk, skim, 1 cup	302	mustard greens, 1 cup, cooked	276
milk, 2%, 1 cup	297	sardines (w/bones), 3 oz. can	300
cheese, cheddar, 1 oz.	204	salmon (w/bones), 3 oz. can	203
cheese, swiss, 1 oz.	272	tofu, fortified, 4 oz.	146
cheese, parmesan, 1 Tbs, grated	69	chick peas, 1 cup, cooked	80
yogurt, plain, lowfat, 1 cup	415	black beans, 1 cup, cooked	103
yogurt, fruit flavored, 1 cup	314	corn tortillas, 2 tortillas	84
cottage cheese, lowfat, 1 cup	155	almonds, dry roasted, 1 oz.	90
calcium fort. orange juice, 1 cup	300		
cheese pizza, 1/8 of 15" pie	220		
macaroni & cheese, 1 cup	200		
broccoli, 1 cup, cooked	187		
broccoli, 1 spear, uncooked	72		
kale, 1 cup, cooked	179		
spinach, 1 cup, uncooked	213		

#### Calcium Supplements

Viaactiv, 1 chew	500
Tums, 1 tablet	200
Tums E-X, 1 tablet	300
Tums Ultra, 1 tablet	400

Adapted from *Pregnancy Nutrition* from the American Dietetic Association

### SOME FOODS ARE HAZARDOUS FOR PREGNANT MOMS AND YOUNG CHILDREN

You and your baby should avoid:

- Cold hot dogs, sausages, and deli meats (like bologna)
- Brie, Camembert, feta, and blue-veined cheeses
- Rare meat and poultry
- Pâtes
- Cold ready-to-eat seafood products
- Cold leftovers
- Unpasteurized milk and milk products
- Unwashed fruits and vegetables
- Unpasteurized fruit juices and ciders
- Raw eggs and raw egg dishes
- Raw shellfish

See the section on **Safe Eating During Pregnancy** (page 21) for more information.

## Breast changes and care

Breast tenderness is often one of the earliest signs of pregnancy. During the first half of your pregnancy, increased hormonal activity causes the milk glands to grow larger and more numerous, making your breasts bigger and heavier. The skin appears thinner and the veins are much more noticeable.

The nipples often become more sensitive and the areola (brown area) darkens in color. You might notice for the first time that this brown area has little pimple-like bumps around the nipple. These bumps are called glands of Montgomery, and secrete a lubricant that conditions the nipple and also minimizes the growth of bacteria. *Using soap on your nipples interferes with the functioning of these tiny glands and can cause dryness which makes you more susceptible to nipple soreness once you start nursing.*

As your pregnancy advances, you may notice leakage of a small amount of sticky, yellowish fluid (colostrum) which may form a crust over your nipples as it dries. To remove, soften with warm water while bathing. Many women are reassured to see droplets of colostrum come out when they gently squeeze and massage their breasts. Do not worry if you cannot express colostrum, or if you never have any leakage. This is no indication of your ability to produce milk.

Most women discover that they need a larger, sturdier bra during pregnancy to accommodate the 1-2 pound increase in breast size and weight. *Good support will help prevent backache and excessive sagging of the breast tissue.* When shopping, take time to try on different styles and select bras that fit well and that support without causing pressure on any part of your breast. Generally speaking, you will need at least one size larger (in both cup and chest measurements) than what you wore before getting pregnant.

Women who are planning to breastfeed often start wearing a nursing bra during their last trimester so that they can leave the flaps down to help condition their nipples (see following section). Whether or not you condition your nipples this way, go shopping for bras 2-4 weeks before your due date so you will have at least 2, preferably 3, bras to take with you to the hospital.



A “normal” nipple



A flat nipple



An inverted nipple

### A good nursing bra should:

- Be comfortable! Straps should be adjustable and should not dig into your shoulders. Cups should be ample (with a little room to spare) and should not constrict any part of your breasts, especially underarm areas. You should be able to comfortably run two fingers around inside the edge of the cup.
- Allow for adjustment in both chest and cup size since your breasts may vary in size throughout the day once your milk comes in. Make sure your bra fastens on the middle of the three sets of hooks on the back.
- Be made of comfortable absorbent material such as cotton or cotton blend.
- Have flaps that can be easily undone with one hand. Velcro fasteners are easy but are noisy and often undo themselves when you raise your arms!

Remove any plastic liners since they retain heat and moisture and contribute to nipple soreness. Wash bras at least once before wearing. It may also be helpful to purchase a bra extender, which will allow for more expansion during the early weeks when engorgement might be a problem.

If you prefer an underwire bra, be sure the wire rests on the chest wall, not on the breast tissue. Ill-fitting underwires can contribute to plugged ducts and mastitis.

If you are large-breasted and have trouble finding a nursing bra that fits, let us know. We can recommend other suppliers.

## Using breast shells for flat or inverted nipples

Flat or inverted nipples respond well when breast shells are worn daily during the last three months of pregnancy.

Start out by wearing these shells for an hour or two twice a day and gradually increase to 8-10 hours daily. If you find that your nipples are more sensitive after wearing these shells for several hours at a time, expose them to air by removing the shells for short periods.

Wash the shells daily with hot, soapy water and rinse thoroughly. **Be sure to take them to the hospital with you!**



Disposable nursing pads are expensive and can contribute to sore nipples if they have a plastic liner. You may purchase washable cotton pads or can substitute men's hankies, baby's terry washcloths, or you can make reusable pads out of soft, flannel diapers, or old T-shirts.

### Preparing for breastfeeding

We believe that "breast is best" for both mother and baby. We encourage all our patients to breastfeed. In this section, we will discuss ways to prepare for this special way of nurturing your baby. Remember, pre-pregnant breast size does not affect breastfeeding success.

Your nurse practitioner can help you assess your breasts and nipples. A normal nipple will protrude. To check this, using your thumb and forefinger, gently compress your breast just behind the areola. If your nipples are flat or inverted, we can provide you with breast shells which may be worn daily during the third trimester to help your nipples protrude.

For women with normal nipples, breast preparation can be as easy as going braless (for the gentle friction of clothing against your nipples) or cautious exposure to sunlight. Women with larger breasts are more comfortable wearing a nursing bra with flaps down.

During pregnancy, avoid the use of soap on your nipples. Also avoid using creams or lubricants on your nipples or areolas. They can interfere with your body's natural lubricants.

Most of the preparation for breastfeeding is mental. Read at least one book about breastfeeding from the list in the back of this book. Attend the Medical Center's *Breastfeeding Seminar* or local LaLeche League meetings (we can supply current phone numbers). This will help you to gain a firm foundation of knowledge about the art of breastfeeding.

Once your baby is born, remember that breastfeeding, like any new skill, requires a learning period. Most women report it takes 3 to 6 weeks before they feel confident about breastfeeding.

Take time to get to know your baby. Relax and enjoy this special time together. It passes all too quickly.

If things are not going well or you have questions or concerns, don't hesitate to call us. We want your breastfeeding experience to be a good one. Don't give up because of temporary discomforts, lack of confidence, knowledge or support. Get help! A board-certified Lactation Consultant (LC) is a health professional who is prepared to assist with any problems. The LCs who staff the Medical Center's Lactation Service have office hours each day; and many insurance plans cover this kind of service.

### **Psychological preparation for breastfeeding**

It is hard to realistically prepare yourself emotionally for something you have never done before. We would like to caution you not to expect too much too soon.

Many new parents have the idea that breastfeeding is instinctive and that all the mother has to do is hold her infant against her breast and he will immediately start to suck vigorously. It is wonderful if it happens this way; however, often getting started isn't that easy. Initially, most new mothers feel awkward, a little nervous, and not too sure about what they are supposed to do. It's one thing to read about getting started and another to actually do it! Many babies are totally disinterested for the first several attempts. They may be more interested in staring at you, fussing, or sleeping. With time, they will put forth more of an effort to suck and gradually will learn what they are supposed to do. It should be remembered that each baby is a unique little person with his own way of doing things. Mothers who nurse all their babies will frequently find that each nursing experience is different.

Most important: Relax! Consider the early days as a learning time for both of you. If your baby isn't interested in eating, concentrate more on cuddling him against your bare skin, stroking him, talking to him. Use this time to get acquainted and comfortable with him. Don't be shy about asking us for help.

Above all, don't worry that your baby will "starve." He will more than likely lose weight until your milk supply is established, regardless of his nursing performance. Babies are born with fat and fluid stores designed to keep them going for the first few days and lose weight while stores are being used. Bottle-fed babies lose weight the first few days, too.

Even after breastfeeding is established and your milk is in, you will probably have good days and bad days. This happens regardless of the method of feeding. Take one day at a time and don't expect a predictable schedule during the early weeks. These temporary problems are usually balanced by the good feeling you have about nursing. For many mothers, it is a very special, rewarding experience that is over all too soon.

See page 44 for the "Breastfeeding Success Checklist."

### **Travel during pregnancy**

There are few restrictions on travel during a normal pregnancy, until the last month. Use common sense when planning excursions during the last month of your pregnancy.

Remember, babies seldom arrive exactly on their due date, and it is not unusual for labor to begin a few weeks earlier than anticipated. Generally, we suggest that you keep your travels within an hour's drive of Nashua after you reach 36 weeks.

Do not travel if it will cause undue fatigue. It is essential that you change positions, stretch your legs, and flex and extend your leg muscles frequently to avoid circulation problems. You should get up and walk for brief periods at least every two hours; uninterrupted car travel can cause cramping and nausea, and possibly blood clots in the legs.

You should always use your car's safety belt. Position the lap belt low across your hips, below the baby.

Some airlines require a doctor's note allowing travel late in pregnancy. Check in advance with your travel agent or airline. Flying in a commercial pressurized airplane is safe during pregnancy, but avoid flying in small private planes since the pressure changes could be harmful. We generally prefer you not fly after 35-36 weeks.

Any woman who has had complications with previous pregnancies or who has a medical condition that requires special care should check with us before planning a trip.

If you are deciding about a trip, remember that a problem or need for medical care can develop any time during pregnancy. Research the availability of a hospital with maternity services. You should realize that you could find yourself, and even a premature baby, hospitalized for a prolonged period of time a long way from home. Use good judgement. This may not be the best time to plan an island getaway.

### **Tubs, baths, showers and jacuzzis**

Both tub baths and showers are acceptable. Just remember to compensate for coordination and balance problems by being extra careful when getting in and out of the tub.

**Do not use steam baths or saunas!** Prolonged exposure to high temperatures may be harmful to the baby. Jacuzzis are probably safe at normal bath tub temperature (around 100°F), but adjust the jets to avoid forcing water into your vagina. Home tub baths should be avoided after your membranes have ruptured.

### **Douching**

Douching is not necessary for good health and should not be done during pregnancy.

### **Dental care**

You should continue such routine dental habits as brushing after meals, limiting sweets in your diet, and going for regular checkups and exams. Gums tend to be sensitive during pregnancy, so this is especially important. Poor mouth care increases your chances of gum infection.

There is no reason to avoid any necessary dental work under local anesthesia because you are pregnant. However, extensive dental work requiring general anesthesia should not be done without first consulting us. ***This means that novocaine and xylocaine are safe, but don't have "gas" or pentothal injections.*** Dental x-rays performed with a lead apron are safe.

It is important to realize that your baby's teeth are being formed now, in utero, from the foods you are eating. Fluoride supplementation during pregnancy to protect the baby's forming teeth is not recommended by the American Dental Association. Prenatal fluoride supplements can discolor the baby's teeth. The current recommendation is to begin fluoride when your baby is 6 months old.

Take care of your mouth during pregnancy. Brush thoroughly with an ADA-accepted fluoride toothpaste twice a day. Floss or use an interdental cleaner between your teeth once a day. Eat a balanced diet, and choose healthy, low sugar snacks. See your dentist for regular dental checkups and professional teeth cleaning.

### **Eye care**

Pregnancy can affect your eyes, particularly for those who wear contact lenses. Routine eye exams should ideally wait until after pregnancy for several reasons. The eye drops used for dilatation and glaucoma testing are not recommended during pregnancy, and your vision test can be altered by the pregnancy.

### **Sexual intercourse**

Pregnancy and the resulting physical and emotional turmoil may bring changes in sexual desires and responses in both partners. Myths about sex during



pregnancy abound, giving rise to many worries; the most common one being a concern that intercourse will harm the baby or cause a miscarriage.

In actuality, the baby is well protected by the bag of waters as well as the mucus plug which seals off the opening to the uterus. As long as these barriers remain intact, there is no need to worry that intercourse will be harmful. Use your mutual comfort as a guide.

A note of caution: should you engage in oral-genital sex, use care that air is not blown into the vagina. This is not a safe practice at any time, but may be especially hazardous during pregnancy.

As the pregnancy progresses, experimentation with positions, techniques, and a liberal use of pillows, plus a sense of humor, can help solve the problem of the interfering belly. As your uterus becomes larger, do not be alarmed if you feel it contracting after an orgasm. This is a normal occurrence, and does not mean that labor has begun.

**Generally intercourse should be avoided when:**

- **The cervix begins to soften and dilate** before 36 weeks. We can determine this during an internal exam.
- **The membranes have ruptured.** In other words, the bag of waters has broken or is leaking.
- **Any bleeding occurs**, whether a threatened miscarriage in early pregnancy, or a bloody show as labor approaches.

Should you have spotting after intercourse, limit sexual activity and mention it at your next visit – or call if your next visit is a long way off.

**Working**

You can work until the day your baby is due as long as you are healthy and feel comfortable doing so. It is important to limit your work day to 8 hours and your work week to 40 hours.

Take advantage of the 15-minute breaks you are allowed every four hours, as well as your daily meal break to take a walk, rest on your left side, etc. Read the sections in Chapter 5, Common Discomforts of Pregnancy, regarding leg cramps (page 33) and backaches (page 37). You will find it helpful, as your pregnancy progresses, to take rest periods for your tired legs during the work day.

**Our policy on disability during pregnancy**

Disability insurance benefits are offered to many working women, and according to federal law, pregnancy-related disability is covered to the same extent that other types of disability are covered. Some policies have a waiting period before coverage occurs, and many provide only a portion of the usual salary. Some employees have a maternity-leave policy which functions in addition to or instead of disability insurance.

For uncomplicated pregnancies, we will certify patients to be disabled from 2 weeks prior to their expected delivery date until 6 weeks after the delivery (even for patients having cesarean births). However, many disability policies will only cover women from their actual due date, so please check with your employer about your coverage. It's best to avoid any unpleasant financial surprises at this time!

If there are any medical complications during the pregnancy or after the delivery, disability will be extended appropriately.

We need to be firm and consistent with regard to disability. Please do not ask us to alter disability unless there is a *bona fide* medical reason to do so.

Some of our patients have lengthy or difficult commutes to work, and it is sometimes necessary to curtail work due to commuting time. Disability insurance companies may not provide benefits under these circumstances.

### **If you need a blood transfusion**

Although it is uncommon to need a blood transfusion following a delivery, occasionally complications occur leading to profuse blood loss, and in these situations, a transfusion might be indicated. Most medical care providers try to go out of their way to avoid transfusions for the same reason that patients are reluctant to receive them; namely, the fear of transmission of a blood-borne infection such as HIV (the virus that causes AIDS) or hepatitis.

It is our practice to work as hard as we can to avoid blood transfusions. If you wind up with a low blood count after the delivery, more likely than not we will recommend iron supplementation and decreased activity. In a healthy person, the blood count should begin rising a week or two after iron therapy has begun. However, in the event of a profoundly low blood count or continued bleeding, a transfusion might be recommended – especially if the blood count is low enough to cause dizziness or light-headedness, or if further bleeding is possible.

All the blood transfused at the Medical Center is obtained through the American Red Cross blood banking system. The blood is donated by volunteers who live in New Hampshire, Maine, Massachusetts and Vermont, and who constitute a low risk population when it comes to HIV, hepatitis, and other blood-borne infections. None of the blood is purchased from people who “sell” their blood for money. All donors are rigorously screened and those with risk factors for infection are rejected, and all blood is carefully tested for infections. Despite this, however, the risk for contracting an infection after transfusion is not zero. National statistics indicate a less than 1 out of 660,000 chance of becoming HIV positive following a transfusion.

It is possible for you to select donors with compatible blood who can go to the Red Cross office in Manchester and donate blood to be stored at the Medical Center for your use in the event that you need a transfusion. This is called “directed donor transfusion.” Because the American Red Cross is very strict about their quality control process, it is required that the blood be donated at the Red Cross (not at the Medical Center) and that 5-7 working days transpire between collection and transfusion so that proper evaluation and testing can be performed. This makes it impossible to donate blood on an emergency basis. There is a cost of \$75.00 per unit of blood for processing and storage (this is generally not covered by insurance companies), and there would be an additional charge if a transfusion was given.

It is also possible to donate your own blood to be stored for potential transfusion. The American Red Cross fee is similar to that for directed donor transfusion. While this is something that is routinely done for our surgical patients, it is generally discouraged during pregnancy since most women’s bodies have a hard enough time keeping up with the increased production of blood needed for the mother and fetus.

*In our opinion, in the absence of specific high risk factors, the chance of needing a transfusion is low enough that directed donor blood is not needed for routine patients.* However, some of our patients may choose to do this for “peace of mind” and if you are interested, you should talk with your nurse practitioner or doctor. If you have a specific problem which would put you at increased risk for transfusion, we will discuss directed donor or auto transfusion with you on an individual basis.