

How to Optimize You and Your Baby's Health in Pregnancy

Relax..... how to avoid stress

We realize that giving you a list of all the ways to avoid risk and optimize your pregnancy can be overwhelming, so as you explore this list, we encourage you to take a deep breath and try not to stress about it. We all know that stress makes us feel bad but did you know that it can also have effects on your baby and on your body? Some professionals even believe that extreme stress could be correlated with pre-term labor. Finding ways to avoid and manage stressors in your life will not only help you to have a healthier pregnancy but it will be a skill-set that will be extremely useful as a parent. In order to manage stress in your life, you may benefit from cutting back at work, asking friends or family for help, finding time to relax and take care of yourself, exercise daily, get plenty of sunshine, and find someone who you can confide in when you feel stressed or emotional. For more specific suggestions, visit the site below.

A quick word about hot tubs.... Hot tubs are a great way to relax and many resources say not to indulge in this while you are pregnant. The concern is that if you raise your core temperature too high, this could harm the baby. Be sure to get out of hot tubs before your skin turns red and you feel uncomfortable. Keep the temperature of warm baths below the point that turns your skin red and makes you sweat. With these precautions in place, enjoy relaxing in the tub.

<http://womenshealth.about.com/cs/pregnancy/a/mispregstress.htm>

Vitamins

The best way to ensure adequate nutrition for you and your baby during your pregnancy is to eat fresh, whole foods as much as possible, avoid highly processed food and take a good prenatal supplement. If you don't already know what "highly processed food" means, it's the pre-packaged, ready-to-eat food found towards the center of the grocery store (such as macaroni and cheese, ramen, frozen pizza, American cheese, hot dogs, soda, etc). To get more fresh food in your diet, try this: start shopping on the outer edges of the grocery store where the produce, meat, and dairy are, then move toward the center where the cans, boxes, and frozen foods are (if you still have room in your cart). Now that you are eating more fresh food, the next step to good nutrition in pregnancy is finding a good prenatal vitamin. There are so many different brands available today that it can be overwhelming to pick the "right" one. Here is what you should be looking for:

Get Vitamin A in the form of beta carotene. If the Vitamin A in your supplement is an artificial form such as retinoic acid make sure the dose is no more than 5,000 IU. Supplemental forms of vitamin A have been proven to cause certain birth defects in high doses but Vitamin A is essential for fetal development so don't avoid it. Some medications contain high doses of vitamin A and should be avoided in pregnancy such as Accutane and Retin-A. For more information about vitamin A visit this site.

<http://www.ajcn.org/cgi/content/full/71/5/1325S#T3>

Make sure your prenatal supplement has at least 400 mcg of folic acid. This B vitamin is essential for the baby's neurological development and it will help prevent spinal cord defects. Folic acid is also found in many dark green leafy vegetables.

Vitamin K has recently been shown to be very important for you and your growing baby. Vitamin K deficiency is linked to bleeding in newborns as well as heart attacks and broken bones in the elderly. There are several kinds of vitamin K so find a prenatal supplement that has at least one kind, preferably two. Also try to get as many dark green leafy vegetables (spinach, kale, broccoli, bok choy, Romaine lettuce) in your diet as you can.

Vitamin D is being found to be a very important vitamin that most people in our society are not getting enough of. Many pediatricians are even recommending that breastfed babies get an extra supplement of vitamin D. A recent study found that 4,000 IU daily of vitamin D in pregnancy may help avoid gestational diabetes, pre-eclampsia, and premature birth. Most prenatal supplements do not have this much vitamin D so you may consider extra supplementation of this important vitamin. To read an overview of the study see this site.

<http://www.webmd.com/baby/news/20100504/high-doses-of-vitamin-d-may-cut-pregnancy-risk>

DHA or docosahexaenoic acid is an omega 3 that is being found to be very important for the baby's brain and eye development. As with many other nutrients, most of us are not getting enough of this nutrient. It is found primarily in fish but is also available in algae-derived supplements. The current recommendation is that pregnant women get 250 mg daily. When looking for a fish oil supplement, be sure that it has been tested for mercury as this heavy metal can be found in fish and can be dangerous. Wild caught salmon is found to have the lowest amounts of mercury.

<http://www.webmd.com/baby/news/20040716/pregnant-omega-3-essential-for-babys-brain>

There are many other vitamins and minerals that are included in prenatal vitamins. High levels of iron can be constipating so you may consider a supplement that has less than 35 mg if this is a concern for you. The best brand we have found is New Chapter Perfect Prenatal although they can be cost prohibitive; a couple of cheaper options that are also adequate are Nature's Way Completia Prenatal Multi or Nature's Plus Source of Life Prenatal. We carry some of these in our office and they are also available at www.vitacost.com.

Cat litter and meat

Toxoplasmosis is an infection caused by the parasite *Toxoplasma gondii*. This parasite can be found in cat feces (like in the litter box or in the soil of a sandbox or garden) or in undercooked meat of animals infected with the parasite. If you have already had toxoplasmosis, you are not likely to get it again. If you have not had it, and you get it while you are pregnant, there is a 50% chance your baby could be at risk for learning, hearing, and visual disabilities later in life. You can avoid getting toxoplasmosis by avoiding the litter box, wearing gloves while you garden, and avoiding undercooked meat.

Symptoms of toxoplasmosis include fever, muscle aches, fatigue and swollen lymph glands similar to the flu. There is a blood test available to check if you are immune to toxoplasmosis.

<http://www.webmd.com/baby/toxoplasmosis>

Left-Overs, processed meat, soft cheese

It is important during pregnancy to be careful with your food. Heat chilled ready-to-eat food such as lunch meat, pate, salami etc. to steaming hot temperatures before eating. Eat only pasteurized milk and dairy products (avoid un-pasteurized, soft cheeses). Wash all fruits and vegetables before eating. Thoroughly cook all raw meat such as chicken, seafood and steak. All of these precautions increase your chances of avoiding the bacterial infection Listeriosis. Listeria can cause miscarriage, still-birth, preterm delivery or death of the baby. Symptoms are flu-like and can lead to meningitis (infection of the lining of the brain, symptoms include severe headache, stiff neck) or blood infection. Call us if you have any of these symptoms.

http://www.babycenter.com/406_is-it-safe-to-eat-deli-meats-when-im-pregnant_1246923.bc

Animal Fat and Fish

Every maternity health care provider will tell pregnant women to get an adequate amount of protein in her diet every day, about 70g to 90g to be precise. Meat is a great source of protein

but it can come with risks if not purchased and prepared properly. Animals and fish are exposed to harmful chemicals in our environment just like we are (often more). These harmful chemicals concentrate in the fat of animals and we can ingest these chemicals while we eat the meat. Choosing lean meats such as chicken, turkey, and fish can help minimize your exposure. Avoiding fried meat can also limit exposure because baking, broiling, or grilling meat cooks the fat off, frying seals it in. Avoiding predator fish (such as swordfish, shark, mackerel, and tilefish) can also limit the exposure to mercury and PCB (polychlorinated biphenyl). The lower on the food chain the fish is the less harmful substances it will contain. Because these harmful chemicals concentrate in animals, it is always a good idea to choose organic meat and organic or fat-free dairy products to minimize exposure.

PCB or polychlorinated biphenyl is the primary concerning chemical because it is linked to nervous system and hormonal damage during fetal development. These chemicals were outlawed in the 1970's so our exposure is thought to have decreased by 90% since then.

Check these websites for more information.

http://www.organicconsumers.org/foodsafety/fish_toxic.cfm

<http://www.dhs.wisconsin.gov/eh/hlthhaz/fs/PCBlink.HTM>

http://www.babycenter.com/0_dietary-fats-in-your-pregnancy-diet-the-best-and-the-worst_1694.bc

The concern with plastics etc.

In the last few years you may have heard about a chemical called BPA or bisphenol A. It can be found in tobacco smoke, carbonless receipts, hard plastics, and the lining of canned foods. There is no current recommendation on what levels of BPA are safe but the chemical is thought to be linked to neurological, endocrine, and behavior problems. It is extremely difficult to completely eliminate BPA exposure but it is a good idea to try and reduce it, especially while you are pregnant. You can do this by not heating your food in plastic containers, using water bottles that are manufactured without BPA, avoid any number 7 plastics, avoid canned food unless you research their BPA status first (soups and pastas seem to be the highest), avoid cigarette smoke, and ask the cashiers to put your receipts in the bag for you. Once your baby is born, you can limit their exposure in the same ways and research the plastic bottles and toys you are buying for them. Visit the sites below for information on brands and more on the issue.

<http://www.thedailygreen.com/environmental-news/latest/bisphenol-a-fda-47121402>

<http://www.webmd.com/baby/news/20101008/bpa-in-pregnancy-cashiers-canned-veggie-eaters-beware>

<http://miscarriage.about.com/od/tryingagainafterloss/ht/reducebpa.htm>

Insecticides

Organophosphates attack the nervous system and can result in a low-birth-weight baby. They are found in insecticides. The United States Environmental Protection Agency is phasing out commonly used household and agricultural organophosphate (OP) agents. As a result, there have been fewer cases of dangerous exposure from 1995 to 2004. You can avoid exposure in your home and work place by using sticky traps or bait stations instead of chemicals and eat organic whenever possible. Some fruits and vegetables have higher levels of OP's than others including apples, bell peppers, celery, nectarines, peaches, pears, potatoes, spinach, strawberries, and peppers.

<http://emedicine.medscape.com/article/167726-overview>

Paint

Lead was banned from gas in 1996 and from paint in 1978. So our exposure to this toxin has decreased since then. Exposure can cause brain and kidney damage and it interferes with every aspect of fetal development. The highest risk of getting exposed lead comes from old

paint. You can reduce your risk by painting over paint used before 1978. Do not chip the paint off before painting over it. To check paint for lead call EPA lead hotline at 800-426-4791.

Drinking water

We are lucky to have such great tasting tap water here in Flagstaff. There are legal limits of certain substances that may be present in our tap water. These range from certain types of bacteria to lead. You can go to the Flagstaff water site below to find a recent report of what is in our water. There is also a site below that reviews water filters if you are interested in buying a home water filter.

<http://www.waterfiltercritic.com/water-filter-buying-guide/>

<http://www.flagstaff.az.gov/index.aspx?NID=19>

<http://water.epa.gov/aboutow/ogwdw/hotline/index.cfm>

Remodeling, building, and cleaning

Volatile organic compounds evaporate from building, decorating, and household products like air freshener sprays, paint thinner, fungicidal cleaners, dry cleaning chemicals, and floor finishers. VOC's can be associated with diarrhea and earache in infants, as well as headaches and depression in mothers (October 2003 study Archives of Environmental Health). Early exposure can also be associated with lower scores on language and other developmental tests later in the child's life (October 2004 Archives of Pediatric and Adolescent Medicine). These chemicals can also be associated with neurological problems, high blood pressure and cancer. You can reduce your exposure by searching for no or low-VOC products when buying household air fresheners, paint, cleaning supplies and building materials. Minimize or eliminate your use of aerosol products such as hair spray, oven cleaner, carpet cleaner, etc. "Green" cleaning agents like vinegar or hydrogen peroxide can be substituted for many household cleaners. Avoid solvents such as toluene, mineral spirits, isopropyl alcohol, and trichloroethylene while you are pregnant.

<http://g3environmental.com/pregnancy.htm>

Vehicular and smokestack emissions

Polycyclic aromatic hydrocarbons can be found in car or bus exhaust, emissions from residential heating and power generation, in-home heating and cooking, tobacco smoke, and charred food. Exposure to these chemicals may result in shorter gestation, or problems with neurodevelopment. You can reduce your risk of exposure by limiting your use of wood or coal for heating or cooking, use electricity or natural gas instead. Also, try to limit your exposure to car exhaust.

<http://aje.oxfordjournals.org/content/165/6/634.full>

Beauty/ Hygiene products

There are many products out on the market used for beauty or hygiene including shampoo, conditioner, hair dye, nail polish, perfume etc. Some of these products may contain chemicals that could be harmful to you or your baby. Phthalates (hormone-system disruptors) have been shown to cause birth defects in animals. Plasticizers found in nail polish, vinyl, and synthetic fragrances may also be harmful. To reduce your risk, avoid soft vinyl products and cosmetics containing fragrance. You can look up any of the products at the websites below to see what may be contained in them and whether or not they are safe.

<http://www.nottoopretty.org/article.php?list=type&type=33>

<http://www.cosmeticsdatabase.com/>

http://www.babycenter.com/0_safe-skin-care-during-pregnancy_1490031.bc

Fire Retardants

Many household items (such as furniture, televisions, computers, and mattresses) are produced with fire retardants to protect us in the case of a fire. These fire retardants contain

polybrominated diphenyl ethers (PBDEs) which may alter thyroid hormones and affect the baby's neurodevelopment. The fire retardant is released in its highest amounts when furniture is ripped, or carpet is being ripped up. Manufacturing companies are aware of the risks of these chemicals and the following companies are using safer fire retardants: Canon, Dell, Ericsson, HP, Panasonic, NEC, Sony, Xerox and Ikea Furniture. To reduce your exposure to PBDEs, buy furniture and carpeting made of natural and untreated fabric, get rid of furniture that is old with the internal foam exposed, and avoid furniture made or sold in California because the fire codes are stricter so the products are given an extra coating of fire retardant.

<http://ehp03.niehs.nih.gov/article/fetchArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.118-a445b>

<http://www.jonbarron.org/blog/2010/03/fire-retardant-retards-pregnancy.html>

If you have any concerns about any other substances or chemicals, feel free to contact the teratogen hotline in Tuscon, Arizona at (888) 285-3410 or (520) 626-3410, or visit them on the web.

<http://www.pharmacy.arizona.edu/outreach/pregnancy/>