

Chapter 1 : Treating for Two: Medicine and Pregnancy | CDC

Here's a list from WebMD of safe medications during pregnancy and a look at the use of natural -- or alternative -- therapies when a woman is pregnant. Taking Medicine During Pregnancy.

Wondering if it is safe to take cold medicine when you are pregnant? What about a safe medication to treat heartburn? Here are some of the most common drugs pregnant women must avoid and alternative methods of treatment. Elizabeth Weiss McGolerick A word of caution: Always check with your obstetrician before taking any medication, embarking on exercise routines or getting massage, acupuncture or chiropractic treatment while pregnant. Pain relievers during pregnancy Aspirin, ibuprofen and naproxen, found in OTC medications like Excedrin Migraine, Aleve, Advil and Motrin, are common drugs that pregnant women simply cannot take, says Rebecca Kolp, associate director of gynecology at Massachusetts General Hospital. Consumer Reports recommends not exceeding milligrams a day to reduce the risk of miscarriage. Alternative methods to manage pain during pregnancy There are natural ways to diminish pain. Tension headaches can be relieved by lying on the floor and massaging the back of your neck with two tennis balls wrapped in a sock. Consider looking into prenatal yoga classes to alleviate headaches. For neck strain, gentle head rolls and shoulder-opening poses like eagle pose may be helpful. Comfrey is not safe taken orally during pregnancy, but applying topically is fine. Some moms-to-be may consider chiropractic care to reduce dependency on OTC drugs. Adam Tanase, a St. Structurally induced symptoms are best handled through structure-improving methods. Tanase suggests pregnant women look for a chiropractor with specialized training in pregnancy care and experience caring for pregnant patients. Digestion slows so the body can absorb more nutrients from food leaving mummies-to-be with indigestion, heartburn, constipation, bloating, gas and irregular bowel movements. Bismuth subsalicylate, found in Kaopectate and Pepto Bismol, is not recommended says Kolp. Zantac over-the-counter can be used for heartburn. She also suggests a probiotic supplement daily for regular bowel movements and almond milk for heartburn. Do not take castor oil or herbal laxatives like aloe vera, buckthorn, butternut and cascara sagrada. GI issues can be aided by prenatal yoga. A restorative yoga pose, like the reclined goddess pose pictured, right , can help. Eucalyptus steam is another option for congestion, allergies or sinus headache. Products like Nicorette gum and Nicoderm patches are not generally recommended during pregnancy because they come with their own risks because they still contain nicotine which is harmful to your baby. Nicotine is a chemical addiction and a little trickier to deal with, says Flashenberg. Herbal remedies during pregnancy Many herbal and natural remedies are safe during pregnancy, but many are dangerous. Raupp advises pregnant women to avoid herbs that affect hormone levels and induce uterine contractions: Your clearance to use specific OTC drugs may depend on your trimester. Approach every drug with caution and read labels. Just because a drug is OTC does not mean it is safe for one and all. More on taking medications during pregnancy:

Chapter 2 : Medications during pregnancy: List of safe and unsafe drugs

Wondering if it is safe to take cold medicine when you are pregnant? What about a safe medication to treat heartburn? It's natural to turn to the medicine cabinet at the first sign of a headache, indigestion or sniffle.

Immediate access to this issue CME credits in this issue To see the full article, log in or purchase access. He recently completed a fellowship in family practice obstetrics at Florida Hospital, Orlando. Address correspondence to D. Reprints are not available from the authors. The authors indicate that they do not have any conflicts of interest. Prescription to over-the-counter drug reclassification. Toxic effects on the female reproductive system during pregnancy, parturition, and lactation. Current status of teratology. Drugs in pregnancy and lactation: Maternal and fetal effects of acetaminophen and salicylates in pregnancy. The controversy surrounding indomethacin for tocolysis. *Am J Obstet Gynecol*. Ibuprofen overdose and exposure in utero: First trimester maternal medication use in relation to gastroschisis. The use of newer asthma and allergy medications during pregnancy. *Ann Allergy Asthma Immunol*. Effect of a single dose of oral pseudoephedrine on uterine and fetal Doppler blood flow. Diphenhydramine overdose during pregnancy: Perinatal mortality due to interaction of diphenhydramine and temazepam. *N Engl J Med*. The safety of dextromethorphan in pregnancy: First-trimester drug use and congenital disorders. Maternal illness, including fever and medication use as risk factors for neural tube defects. Effects of geophagia kaolin ingestion on the maternal blood and embryonic development in the pregnant rat. Constipation and diarrhea in pregnancy. *Gastroenterol Clin North Am. Arch Pediatr Adolesc Med*. Double-blind, placebo-controlled study of ranitidine for gastroesophageal reflux symptoms during pregnancy. A comparative evaluation of the transport of H₂-receptor antagonists by the human and baboon placenta. *Am J Med Sci*. Gastroesophageal reflux disease during pregnancy. Safety of first trimester exposure to H₂ blockers. No teratogenic effect after clotrimazole therapy during pregnancy. Prospective assessment of pregnancy outcomes after first-trimester exposure to fluconazole. Antifungal therapy during pregnancy. Centers for Disease Control and Prevention. Young GL, Jewell D. Topical treatment for vaginal candidiasis thrush in pregnancy. Effect of maternal cigarette smoking on pregnancy complications and sudden infant death syndrome. Risks and benefits of nicotine to aid smoking cessation in pregnancy.

Chapter 3 : Safe and Harmful Drugs in Pregnancy

COMMON MEDICATIONS SAFE IN PREGNANCY Clindamycin ACNE: Benzoyl Peroxide Topical Erythromycin. Salicylic Acid. AVOID: Accutane Metamucil. Retin-A. Tetracycline. Minocycline.

Find articles by Punam Sachdeva B. Patel Find articles by B. Patel Department of Pharmacology, A. This article has been cited by other articles in PMC. Abstract Pregnancy is a special physiological condition where drug treatment presents a special concern because the physiology of pregnancy affects the pharmacokinetics of medications used and certain medications can reach the fetus and cause harm. Total avoidance of pharmacological treatment in pregnancy is not possible and may be dangerous because some women enter pregnancy with medical conditions that require ongoing and episodic treatment e. Also during pregnancy new medical problems can develop and old ones can be exacerbated e. The fact that certain drugs given during pregnancy may prove harmful to the unborn child is one of the classical problems in medical treatment. Various other examples of teratogenic effects of drugs are known. Hence in , Food and Drug Administration developed a system that determines the teratogenic risk of drugs by considering the quality of data from animal and human studies. Category A is considered the safest category and category X is absolutely contraindicated in pregnancy. This provides therapeutic guidance for the clinician. This article focuses on various aspects relating to drug use during pregnancy. Teratogenic drugs, physiology of pregnancy, FDA categories of drugs, drug use in pregnancy In pregnancy drug treatment presents a special concern due to the threat of potential teratogenic effects of the drug and physiologic adjustments in the mother in response to the pregnancy[1]. The physiology of pregnancy affects the pharmacokinetics of medications used and certain medications can reach the fetus and cause harm[2]. These events led the US Food and Drug Administration to establish strict regulations regarding drug labeling, the use of medications in pregnancy, requiring demonstrations of safety and efficacy of any drug before it becomes commercially available[4]. The fertilized egg immediately begins to divide into a growing cluster of cells. Between days after ovulation the fertilized egg implants into the wall of uterus and starts forming the placenta. It also allows transfer of waste substances from the growing baby. From the time of implantation into the wall of uterus until approximately eighth week of life the baby is known as embryo. Development is rapid during this stage as the specialized cells begin to form the vital organs, nervous system, bones, muscles and blood. After the eighth week of pregnancy the developing baby is called a fetus. As the fetus and placenta grow and place increasing demand on the mother, phenomenal alterations in metabolism occur. The most obvious physical changes are weight gain and altered body shape. Weight gain is due to increase in breast tissue, blood and water volume in the form of extra vascular and extra cellular fluid. Deposition of fat and protein and increased cellular water are added to maternal stores. The average weight gain during pregnancy is During normal pregnancy 1 kg weight gain is due to protein. Also plasma albumin levels are decreased and fibrinogen levels are increased. Total body fat increases during pregnancy. During second half of pregnancy plasma lipids increase but triglycerides, cholesterol and lipoproteins decrease soon after delivery. Limited information exists regarding the effects of drugs in the period of conception and implantation. It is suggested that women who are at the risk of conceiving or who wish to become pregnant should withdraw all unnecessary medications months before conception[8]. Certain drugs taken early in pregnancy days after fertilization during the period of blastogenesis may act in an all or nothing fashion; killing the foetus or not affecting it at all. During this early stage the fetus is highly resistant to birth defects. The fetus is highly vulnerable to birth defects between 3rd week and 8th week after fertilization; which is the period of organogenesis. All major organs start developing during this period. Drugs reaching the fetus during this stage may cause a miscarriage, an obvious birth defect, or a permanent but subtle defect, that is noticed later in life. At 9th week the embryo is referred to as a fetus. Development during this time is primarily maturation and growth. Exposure to drugs during this period is not associated with major congenital malformations but they may alter the growth and function of normally formed organs and tissues[7]. The effect of a medication also depends on the dose that reaches the fetus. This dose is affected by the maternal dose, distribution of the drug in maternal blood stream, placental function,

maternal and fetal genetic and physiologic status as well as exposure to other drugs, chemicals or environmental hazards[9]. These factors contribute to lower circulating concentration of some drugs especially those excreted by kidney in a pregnant woman and possibly to subtherapeutic drug levels. Also there is increase in body fat during pregnancy; which increases the volume of distribution of fat soluble drugs. A decrease in plasma albumin concentration during pregnancy increases the volume of distribution for highly protein bound drugs e. But the unbound drugs are excreted out more rapidly by the kidney and liver; and this offsets the effect of increased volume of distribution. Due to the effect of progesterone, gastric emptying time is decreased particularly in the third trimester thus delaying the onset of effect of the drug[9]. Concurrent use of other common medications during pregnancy such as antacids, iron and vitamins could also bind and inactivate some drugs. Intramuscular absorption of drug is generally more rapid due to increased blood flow; which enhances systemic drug absorption and the rate of onset of action[9]. Lastly estrogen and progesterone alter hepatic enzyme activity; which can increase drug accumulation or decrease elimination of some drugs[10]. The functions of the placenta include nutrition, respiration, metabolism, excretion and endocrine activity to maintain fetal and maternal well-being. In order for a drug to cause a teratogenic or pharmacological effect on the fetus, it must cross from maternal circulation to fetal circulation through the placenta by diffusion[8]. The rate of transfer depends on the chemical properties of the drug such as protein binding, pH difference, lipid solubility and molecular weight of the drug[11]. Only free unbound drug crosses the placenta. During pregnancy maternal plasma albumin decreases while fetal albumin increases. As a result the concentration of free drug increases which crosses the placenta to reach the fetus. Fetal pH is slightly more acidic than maternal pH and so weak bases are more likely to cross the placenta[12]. Moderately lipid soluble drugs can easily diffuse across the placental membrane. Transplacental transfer of drugs increases in the third trimester due to increased maternal and placental blood flow, decreased thickness and increased surface area of the placenta[9]. However to produce the desired effect, they have to be safe, efficacious and have to be used rationally[13]. In general, drugs unless absolutely necessary should not be used during pregnancy because drugs taken by a pregnant woman can reach the fetus and harm it by crossing the placenta, the same route taken by oxygen and nutrients, which are needed for the growth and development of fetus[7]. While avoiding medications when pregnant may be desirable, it is often not possible and may be dangerous because some women enter pregnancy with medical conditions that require ongoing and episodic treatment e. Failure to manage conditions like these may affect the health of both the mother and her infant[14]. Also some drugs like vitamins, minerals, iron and dietary supplements are essential for the health of pregnant woman and the fetus. Many women take medications in the early weeks of pregnancy before realizing that they are pregnant. The fact that certain drugs given during pregnancy may prove harmful to the unborn child is one of the classical problems in medical treatment[15]. Pregnant women are usually excluded from medical trials and results from animal studies need not apply to human population. Hence treating pregnant women with some drugs is a problem and most clinicians have a rather restricted approach to the use of drugs during pregnancy. Fear of causing fetal harm and death through medication use in pregnancy has resulted in many challenges to clinical research about the safety of drugs in pregnancy. Therefore medication safety information in pregnancy is actually obtained through case reports, epidemiological studies and animal studies; all of which have limitations, that make determining risks of a drug use during pregnancy difficult[4]. This makes it difficult for women and health care providers to decide whether to use medications during pregnancy or not[14]. Despite the paucity of information on the safety of drugs in pregnancy, the statistics on over the counter OTC and prescription drugs used in pregnancy indicate that drug use in pregnancy is wide spread[15]. However drugs are sometimes essential for the health of pregnant women and fetus. A health care practitioner may recommend that women take certain vitamins and minerals during pregnancy[7]. Drugs are also used for treatment of some common symptoms associated with pregnancy such as aches and pains, nausea and vomiting, and edema[18]. Medications may also be prescribed to treat conditions occurring during but unrelated to pregnancy such as upper respiratory infections, urinary tract infections and gastrointestinal upsets to name some. Also pregnant woman may be using medications to treat pre existing chronic conditions such as epilepsy, hypertension or psychiatric disorders or to treat pregnancy related disorders such as pregnancy

induced hypertension, to induce labor or to facilitate lung maturity in the fetus expected to be delivered preterm[16]. Also this patient population may be exposed to any other agents that may have an adverse effect on fetus[8]. It therefore becomes important to examine the pattern of drug use in pregnancy to see to what extent there may be room for improvement in the light of current knowledge[17]. They can act directly on the fetus causing damage or abnormal development leading to birth defects or death. They can also alter the function of the placenta usually by constricting blood vessels and reducing the blood supply of oxygen and nutrients to the fetus from the mother and thus resulting in a baby that is underweight and underdeveloped. Moreover they can cause the muscles of the uterus to contract forcefully; indirectly injuring the fetus by reducing the blood supply or triggering pre-term labor and delivery. It provides therapeutic guidance for the clinician. Category A is considered the safest category but some drugs from categories B, C and D are also used during pregnancy. Category X is the only rating that denotes a drug is absolutely contraindicated for use during pregnancy Table 1. Some of the drugs commonly used during pregnancy and their categories as per FDA categorization are mentioned in the table given below Table 2. Some of the drugs have been proved to be harmful to the fetus and so their use during pregnancy is contraindicated.

Chapter 4 : Prescription medicine during pregnancy | March of Dimes

These medications are safe to take as directed on the label and are available over the counter. If symptoms persist, contact the office at to schedule an appointment. This list is meant only as a guideline and should not be considered a replacement for medical advice directly from your doctor.

The Food and Drug Administration FDA created the FDA Use in Pregnancy Ratings to help patients and their health care providers decide whether or not the risks of taking a medication outweigh the possible benefits to the mother and baby. However, most medicines approved by the Food and Drug Administration are not tested on pregnant women. The assignment of a new drug to an FDA category may be based solely on the results of animal tests. Information on the effects of medications in human pregnancy comes from studies that depend on the recall of the mother, prescription databases, teratology services, birth registries, and Pregnancy Exposure Registries. It can take years to detect an increase in a specific outcome associated with the use of a particular medication. In addition, time and actual dosage are not always clear in these studies. Medications as Potential Teratogens in Pregnancy Something that causes a birth defect to occur at a higher rate than expected is called a teratogen. The teratogen may be a chemical, a drug, an infection, radiation, or a maternal condition such as diabetes. Most teratogens produce their effect during the sensitive 5th to the 10th week embryonic period of development when the major organs are forming. For example, thalidomide causes limb defects when taken during the 21st to the 36th day after conception, and tetracyclines do not produce their effects until after the first trimester when the skeletal system begins to form bone. However, some drugs such as alcohol may produce harmful effects on functional development throughout pregnancy. To find out how far along you were in pregnancy when you were exposed to an agent. For some teratogens the effect depends on the amount of the exposure with less severe birth defects occurring at lower doses. For other teratogens such as radiation there appears to be a minimum threshold level 5 rads below which exposure is not believed to cause birth defects. Suggestions for taking medications when pregnant: Use medication only if absolutely indicated. Avoid taking medications during the first trimester unless you have been instructed by your doctor to do so. Choose a medication with a proven track record in human pregnancy. Use the lowest effective dose. Avoid combination drugs if possible. Do not use over-the-counter drugs that might interact with prescription medications. Rev Obstet Gynecol.

Chapter 5 : Pregnancy and Breastfeeding Warnings from racedaydvl.com

No medication is percent safe, and even medication that's safe for someone else to take during pregnancy might not be safe for you. So always check with your healthcare provider before you take any kind of medicine during pregnancy - even an over-the-counter (OTC) product.

Overview During my last pregnancy, I had frequent migraine headaches and wondered which medications were safe to take. With rules about pregnancy medications constantly changing, it can feel overwhelming to know what to do when feeling sick. It usually comes down to weighing the benefits for a mother with a health condition – even one as simple as a headache – with potential risks to her developing baby. In the past, medications were assigned to categories of safety by risk level, from A to X. Category A was the safest category of drugs to take. Category X were to be never used during pregnancy. But as of , the U. Pregnancy Pregnancy includes labor and deliver. This label contains all existing and updated information in a new pregnancy exposure registry for available drugs. The information on the registry includes potential risks and side effects of taking a medication during pregnancy, labor, and delivery. Lactation Lactation includes women who are breastfeeding. This label informs about levels of drugs that will be present in breast milk and potential effects on a breastfeeding infant. Females and males of reproductive potential This label covers anyone with the potential of having children. It tells doctors or other medical staff when pregnancy testing, contraception recommendations, and information about infertility is necessary. Pregnancy exposure registry The pregnancy exposure registry is new. Information is still being collected about different kinds of medication and their possible effects on pregnant and breastfeeding individuals. But there are some guidelines for specific medications that people should avoid during their pregnancies. Doctors warn pregnant women not to take them. Below is a sampling of medications pregnant women should avoid. Many of them are antibiotics.

Chapter 6 : Drug Use in Pregnancy; a Point to Ponder!

Treating for Two is a program that aims to improve the health of women and babies by identifying the safest treatment options for common conditions before, during, and after pregnancy. Basics Safer Medicine Use in Pregnancy.

You might be trying to get pregnant and wonder how current medication use could affect your efforts to conceive. Or you may have just discovered that you are pregnant and wonder if the medication is a risk to your baby. Contact your health care provider who prescribed the medication. You may discover that the benefits of taking the medication outweigh potential risks. You and your healthcare provider can work through these factors and try to determine what course of action is best for both you and your baby. Please know that many women take prescription medication during pregnancy for necessary reasons like diabetes , seizures, depression , anxiety, and other medical conditions. Some pregnant women take medications to help with common discomforts of pregnancy such as heartburn , morning sickness , or headaches. Pregnancy can affect the effectiveness of your medication. When you are pregnant, your blood volume increases, and your heart and kidneys both work harder. This means that medications have the potential to pass through your body more quickly than usual. This may mean that you have to take more medicine or take it differently. In most cases, there are different types of medications to address a particular problem. Your health care provider may switch the type of medication you are on to take care of your medical needs while lessening any risk to your developing baby. Medication Risk Factor Classifications Each medication has a risk factor classification associated with potential risk factors during pregnancy. These ratings, along with an evaluation of the risks and benefits of using a particular medication in your situation, will help you and your health care provider determines what steps to take. Controlled studies show no risk or find no evidence of harm. Animal studies show no risks, but there are no controlled studies on pregnant women. Animal studies have shown risk to the fetus, there are no controlled studies in women, or studies in women and animals are not available. There is positive evidence of potential fetal risk, but the benefits from use in pregnant women may be acceptable despite the risk i. Studies in animals or human beings have demonstrated fetal abnormalities, or there is evidence of fetal risk. The drug is contraindicated in women who are or may become pregnant. Category C is the confusing category. A medication gets this classification if there is insufficient data on its use during pregnancy. It could be safe or probably safe, or it could be potentially harmful. Alternatives to Medication Your doctor has the best in mind for both you and your developing baby. She might look to change the course of treatment by incorporating other methodologies such as acupuncture , herbal medications , or behavioral techniques. Of course, this depends on what medical conditions you are dealing with. You or your health care provider can explore the Natural Medicines Database to find out information about herbs and their use during pregnancy. Recommendations You should never start or stop taking medication while pregnant without first consulting your health care provider. Here are some steps to help make sure you and your developing baby are properly cared for. Always consult your doctor: This is your first and most important step. Look for warnings or pregnancy indications. You should also look for potential allergic reactions as well as expiration dates. Be aware of side effects: Consult your health care provider or the pharmacist about potential side effects. Some medications cause side effects like sleepiness, headaches , or vomiting which may be enhanced because of pregnancy hormones. Be careful to not mix up your medications to avoid overdosing. Do not skip medications: Take as prescribed by your health care provider Do not share medications! It is appropriate to ask questions about medication safety for you and your developing baby. Ask about the medication name, generic alternatives, benefits and risks, and problems to watch for. It is always beneficial to keep a record of medications taken whether pregnant or not. This becomes even more important if you are expecting. Check Pregnancy Medication Registries: The FDA has a new pregnancy and medication registry that you may find helpful. February 16, at

Chapter 7 : Medications during Pregnancy (FDA Category Based Medicine List)

DOWNLOAD PDF LIST OF DRUGS SAFE IN PREGNANCY

Safe and Harmful Drugs in Pregnancy Listed below are some safe drugs and some harmful drugs in pregnancy. Since it is not a complete list, patients are advised to check the drug label of each drug.

Chapter 8 : Over the Counter (OTC) Medications Considered Safe for use During Pregnancy

Nonprescription drugs account for about 60 percent of medications used in the United States, and more than 80 percent of pregnant women take OTC or prescription drugs during pregnancy.^{1, 2} Of the.

Chapter 9 : Medication in Pregnancy and Breastfeeding | racedaydvl.com

To get relief and feel more at ease throughout your pregnancy, check out Dr. Park's recommendations for safe medications while pregnant. (But note that you should to avoid taking unnecessary drugs.