Wernicke Encephalopathy

Information for women who have wernicke encephalopathy during pregnancy or breastfeeding

The information provided below is for readers based in the United States of America. Readers outside of the United States of America should seek the information from local sources.

What is Wernicke encephalopathy during pregnancy?

Wernicke encephalopathy (WE) is a neurological condition resulting from a deficiency of thiamine (vitamin B1). It can be triggered by the administration of intravenous fluids with glucose (sugar) before the person is given supplemental thiamine. Potentially fatal if not recognized and treated early, WE is characterized by three neurological abnormalities, all of which occur in most cases: One is weakness of the muscles that move the eyes (ophthalmoparesis) with the rapid, repetitive movement of the eyes back and forth (nystagmus). Another abnormality is the lack of full control of voluntary muscles and coordinated body movements (ataxia), and the third abnormality is confusion. Outside of pregnancy, WE typically strikes alcoholics, but in pregnancy, it can develop as a complication of hyperemesis gravidarum (HG), a condition that features severe nausea and vomiting, with weight loss and liver problems. This happens due to the vomiting, together with the increased need for thiamine that develops in pregnancy.

How common is Wernicke encephalopathy during pregnancy?

WE is present in approximately 0.04-0.13 percent of nonalcoholics. Many of these cases are in women with HG, which has been reported at rates of approximately 0.3-3 percent of pregnancies, though incidence reports are based on varying criteria used for the diagnosis in different countries. The rate of occurrence of HG differs among ethnic groups and national populations, with an incidence as high as 10 percent reported for some populations of Asian and Middle Eastern women. Incidence also is high among young, non-Caucasian women in their first pregnancy. The chances of developing a thiamine deficiency are elevated in those who avoid foods that are abundant in thiamine, such as whole grains, legumes, and breakfast cereals. Nearly all packaged foods that contain grain are enriched with

thiamine, but people who avoid gluten are at a particular risk of inadequate thiamine intake.

Consequently, you should not eat gluten-free, unless you have celiac disease. Other factors that put you at risk for thiamine deficiency include HIV/AIDS, bariatric surgery, and diuretic medication, such as furosemide. Smoking decreases the risk for developing HG, but this does not mean that you should smoke, since everything else that smoking does is bad, both for you and your baby.

How is Wernicke encephalopathy during pregnancy diagnosed?

There is no specific test for WE, so it is diagnosed clinically based on a combination of factors, including the presence of a risk factor for thiamine deficiency, such as the frequent, severe vomiting of HG, and the finding of neurological abnormalities typical of WE, such as disturbances of eye motion, difficult or uncoordinated body movements, memory problems, or an altered mental state. Magnetic resonance imaging (MRI) of the brain also may be ordered to look for central pontine myelinolysis (CPM), a problem with cells of a part of the brain stem called the pons, which may develop in connection with WE.

Does Wernicke encephalopathy cause problems during pregnancy?

Women with WE during pregnancy are confused and tired. They often experience double vision due to weakness of the muscles that move the eyes, but the eyes also make repetitive movements back and forth (nystagmus). Those with WE also suffer from ataxia, lack of full control, and coordination of body movements. Women with WE also may suffer from CPM, which can lead to severe neurological dysfunction in those who survive.

Does Wernicke encephalopathy cause problems for the baby?

WE during pregnancy entails an elevated risk of spontaneous abortion (miscarriage) and stillbirth.

What to consider about taking medications when you are pregnant or breastfeeding:

- The risks to yourself and your baby if you do not treat the Wernicke encephalopathy
- The risks and benefits of each medication you use when you are pregnant
- The risks and benefits of each medication you use when you are breastfeeding

What should I know about using medication to treat Wernicke encephalopathy during pregnancy?

WE is treated with thiamine given intravenously. Recommendations of the dosage of thiamine vary among authorities and reports from 100-200 mg daily to higher doses, divided into one to three doses

for up to seven days, after which treatment can shift to oral thiamine supplementation. Thiamine therapy must begin before the woman is given any glucose (dextrose).

Who should NOT stop taking medication for Wernicke encephalopathy during pregnancy?

If there is no response to thiamine therapy after 2-3 days, your doctor may pause the therapy to reassess the situation.

What should I know about choosing a medication for my Wernicke encephalopathy during pregnancy?

It is important to stay in communication with your health care provider as the release of new studies over time can change the outlook on the role of specific medications during pregnancy.

You may find Pregistrys expert reports about the medications to treat this condition here. Additional information can also be found in the sources listed below.

What should I know about taking a medication for my Wernicke encephalopathy when I am breastfeeding?

Like pregnancy, breastfeeding increases your need for thiamine, due to the thiamine needs of the baby. Rather than being a risk for a nursing baby, thiamine supplementation is vital to assure that your milk supplies the baby with adequate thiamine. If your doctor determines that your thiamine status is not good, then you may need to feed your infant with formula.

What alternative therapies besides medications can I use to treat my Wernicke encephalopathy during pregnancy?

There is no alternative to thiamine therapy in cases of WE.

What can I do for myself and my baby when I have Wernicke encephalopathy during pregnancy?

Follow the instructions of your physician. If WE is recognized early and treated with thiamine, then your condition can improve dramatically within a matter of days. To lower your risk of developing WE in the first place, take pregnancy vitamin supplements and eat foods that are abundant in thiamine, such as whole grains, legumes, and breakfast cereals (generally, foods containing grains are fortified with thiamin and certain other nutrients). Do not seek out gluten-free foods, unless you have been diagnosed with celiac disease.

Resources for Wernicke encephalopathy in pregnancy:

For more information about Wernicke encephalopathy during and after pregnancy, contact http://www.womenshealth.gov/ (800-994-9662 [TDD: 888-220-5446]) or contact the following organizations:

- Mayo Clinic. Thiamine.
- Baby Center UK. Hyperemesis Gravidarum

Last Updated: 06-01-2020

General information

It is very common for women to worry about having a miscarriage or giving birth to a child with a birth defect while they are pregnant. Many decisions that women make about their health during pregnancy are made with these concerns in mind.

For many women these concerns are very real. As many as 1 in 5 pregnancies end in a miscarriage, and 1 in 33 babies are born with a birth defect. These rates are considered the background population risk, which means they do not take into consideration anything about the health of the mom, the medications she is taking, or the family history of the mom or the baby's dad. A number of different things can increase these risks, including taking certain medications during pregnancy.

It is known that most medications, including over-the-counter medications, taken during pregnancy do get passed on to the baby. Fortunately, most medicines are not harmful to the baby and can be safely taken during pregnancy. But there are some that are known to be harmful to a baby's normal development and growth, especially when they are taken during certain times of the pregnancy. Because of this, it is important to talk with your doctor or midwife about any medications you are taking, ideally before you even try to get pregnant.

If a doctor other than the one caring for your pregnancy recommends that you start a new medicine while you are pregnant, it is important that you let them know you are pregnant.

If you do need to take a new medication while pregnant, it is important to discuss the possible risks the medicine may pose on your pregnancy with your doctor or midwife. They can help you understand the

benefits and the risks of taking the medicine.

Ultimately, the decision to start, stop, or change medications during pregnancy is up to you to make, along with input from your doctor or midwife. If you do take medications during pregnancy, be sure to keep track of all the medications you are taking.