

### Fever/Hyperthermia

This sheet is about fever and hyperthermia in pregnancy and while breastfeeding. This information is based on research studies. It should not take the place of medical care and advice from your healthcare providers.

### What is fever and hyperthermia?

A person's typical body temperature is around 98.6oF (37oC). Fever refers to a temporary rise in body temperature over 101oF (38.3oC). Infection is one of the most common causes of fever. Autoimmune conditions, some cancers, and allergic reactions can also cause fever.

Hyperthermia, or overheating, is a rise in body temperature that happens when the body absorbs more heat than it releases. The most common causes of hyperthermia are heat stroke and severe reactions to medications (malignant hyperthermia). Long exposure to hot temperatures on hot days can also cause hyperthermia. Hot days are often described as being 86oF (30oC) or higher. Extreme exercise or use of hot tubs or saunas might also cause hyperthermia.

A raise in body temperature due to fever or hyperthermia can be of concern in early pregnancy, especially if it lasts for a long period of time. Talk with your healthcare providers to learn if a fever from an infection or illness needs to be treated with fever-reducing medications. Your healthcare provider can decide if the illness causing your fever needs to be treated as well. In some cases, hyperthermia may require immediate medical attention.

### I have fever or hyperthermia. Can it make it harder for me to get pregnant?

It is not known if having a fever or hyperthermia could make it harder to get pregnant.

### Does having a fever or hyperthermia increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Some studies suggest there might be an increased chance for miscarriage with increase in body temperature in pregnancy. Other studies have not suggested an increased chance of miscarriage. As there can be many causes of miscarriage, it is hard to know if a fever, hyperthermia, underlying illness causing a fever, or other factors are the cause of a miscarriage.

#### Does having a fever or hyperthermia increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at research studies to try to understand if an exposure, like fever / hyperthermia, might increase the chance of birth defects in a pregnancy.

Several studies have reported a small chance for birth defects called neural tube defects (NTDs) in babies of people who had fevers or hyperthermia before the 6th week of pregnancy. Neural tube defects occur when the spinal cord or brain does not form properly. High body temperatures that happen after the 6th week of pregnancy are not expected to increase the chance for NTDs.

A few studies have reported a small increased chance for other birth defects when fever or hyperthermia occurs in early pregnancy (before week 12), especially if the fever is untreated. These include heart defects, abdominal wall defects (an opening in the abdomen through which organs such as intestines or stomach can stick out), or oral clefts (an opening in the upper lip [cleft lip] and/or the roof of the mouth [cleft palate]). However, there are also studies that have not found these results. As there can be many causes of birth defects, it is hard to know if a fever, hyperthermia, the illness that is causing a fever, or other factors are the cause of birth defects.

# Does having a fever or hyperthermia increase the chance of other pregnancy-related problems?

It is not known if having a fever or hyperthermia can cause other pregnancy complications. Some underlying illnesses or health conditions that may cause fever could increase the chance for pregnancy-related problems such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth).

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## Does having a fever or hyperthermia in pregnancy affect future behavior or learning for the child?

A few studies have reported a small increased chance for problems such as attention deficit disorder (ADHD) and autism when a person had a fever in pregnancy, especially if the fever was untreated. As there can be many things that affect future behavior and learning for a child, it is hard to know if a fever, underlying infection, underlying medical condition, or other factors were the cause of these problems.

# Does taking medication for fever during pregnancy cause birth defects or other pregnancy complications?

The most common medications used to treat a fever are acetaminophen/paracetamol (Tylenol®) or ibuprofen (Motrin®, Advil®, and Nuprin®).

Most healthcare providers consider acetaminophen to be the fever-reducer of choice during pregnancy. It has been suggested to use only as needed and at the lowest effective dose, unless your healthcare provider has instructed you to use differently. For more information, please see the MotherToBaby fact sheet on acetaminophen at https://mothertobaby.org/fact-sheets/acetaminophen-pregnancy/.

Ibuprofen is in a class of medications called non-steroidal anti-inflammatory drugs (NSAIDs). It has been recommended to avoid the use of NSAIDs, like ibuprofen, after week 20 of pregnancy, unless your healthcare provider feels it is necessary. For more information, please see the MotherToBaby fact sheet on ibuprofen at https://mothertobaby.org/fact-sheets/ibuprofen-pregnancy/.

Talk to your healthcare provider about the best way to treat your fever. You can contact MotherToBaby with your questions about specific medication.

#### How do I prevent fever or hyperthermia during pregnancy?

Fever is usually a sign of another underlying illness or infection, including cold and flu. Limiting exposure to infections, washing hands often, and staying up to date on vaccinations are some of the best ways to prevent illness and possible fever. For more information, please see the MotherToBaby fact sheet on vaccines at

https://mothertobaby.org/fact-sheets/vaccines-pregnancy/. Hot tub or sauna use during pregnancy should be limited. If you live in or are visiting a hot climate, be sure you take precautions and limit the amount of time you spend in the heat.

# What screenings or tests are available to see if my pregnancy has birth defects or other issues?

Prenatal ultrasounds can be used to screen for some birth defects, such as neural tube defects or congenital heart defects. A blood test looking for a chemical called alpha fetoprotein (AFP) is also available to screen for certain types of neural tube defects. Talk with your healthcare provider about prenatal screenings or testing that are available to you.

#### Breastfeeding while I have a fever or hyperthermia:

Having a fever or hyperthermia does not seem to affect the ability to breastfeed. If your fever is due to an illness, there are likely antibodies in the breast milk to help lower the chance that the baby will get sick. Be sure to wash your hands often and wear a mask or try not to breathe directly on the baby's face while nursing. For more information about the use of specific medications during breastfeeding, contact a MotherToBaby expert. Be sure to talk to your healthcare provider about all your breastfeeding questions.

## If a man has a fever or hyperthermia, could it affect his fertility or increase the chance of birth defects?

Heat can affect the process of making sperm (spermatogenesis). Studies looking at high temperature to the testes have found lower sperm production, which might make it harder to get a woman pregnant. Fever in males at the time of conception or in early pregnancy, or a male's use of fever-reducing medication, has not been associated with an increased chance of birth defects. In general, exposures that fathers or sperm donors have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.



Please click here for references.
Questions? Call 866.626.6847   Text 855.999.3525   Email or Chat at MotherToBaby.org.
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