

Eating Raw, Undercooked, or Cold Meats and Seafood

This sheet is about eating raw, undercooked, or cold meats and seafood in pregnancy and while breastfeeding. This information is based on available published literature. It should not take the place of medical care and advice from your healthcare provider.

What are raw, undercooked, or cold meats and seafood?

Raw meat or seafood is any meat or seafood product that has not been cooked at all. Undercooked meat or seafood has been cooked in part but has not been heated to the safe minimum internal temperature. Deli meats (also known as cold cuts) and cold seafood are precooked meats or seafood that have been frozen or chilled for later use.

Raw, undercooked, or deli meats and seafood can contain bacteria and/or parasites that can cause foodborne illnesses. For this reason, it is recommended to cook meat and seafood up to at least the minimum internal temperature, and to reheat pre-cooked cold meats or seafood. See below:

Meat/Seafood	Safe Minimum Internal Temperature
Fish and Shellfish	145 °F (63°C)
Pork	145 °F (63°C)
Reheat Cooked Ham	140 °F (60°C)
Beef (steaks, chops, and roasts)	145 °F (63°C)
Beef and Pork (ground)	160 °F (71°C)
Wild game	165 °F (74°C)
Poultry	165 °F (74°C)
Cold lunchmeat, hot dogs and deli meat or fermented/dry sausages	165 °F (74°C) (Cook until steaming hot)

More information on specific bacteria and parasites that can be found in foods is available in these MotherToBaby fact

sheets:

- **E. coli** (<https://mothertobaby.org/fact-sheets/e-coli-pregnancy/>),
- **Listeria** (<https://mothertobaby.org/fact-sheets/listeriosis-pregnancy/>),
- **Salmonella** (<https://mothertobaby.org/fact-sheets/salmonella-pregnancy/>),
- Toxoplasmosis (<https://mothertobaby.org/fact-sheets/toxoplasmosis-pregnancy/>),
- **Vibrio** (<https://mothertobaby.org/fact-sheets/vibrio-pregnancy/>).

Methylmercury amount is another concern with seafood. Please see our fact sheet at <https://mothertobaby.org/fact-sheets/methylmercury-pregnancy/> for more information.

I heard on the news that a product I might have eaten has been recalled. Is there a place I can check?

The U.S. Food and Drug Administration (FDA) has a website where you can check for food recalls here <https://www.foodsafety.gov/>. If you heard about a recall on the news, write down all the information from the news article and call the phone numbers or check the websites that they have provided.

There can be a chance of infection from food cooked at home and not handled safely. You can learn about safe handling of meats and poultry on the U.S. Department of Agriculture (USDA) site. Click on the consumer section on their website: <https://www.fsis.usda.gov/wps/portal/fsis/home>.

How do I know if I have eaten raw, undercooked, or cold meat and seafood that is infected with bacteria or a parasite?

People can get sick from unsafe food handling practices from eating at a restaurant, on a cruise, on a trip, a home-cooked meal, or other food-related occasions. These situations are unlikely to get reported. Some people who become infected with bacteria or parasites show no symptoms. Others might have fever, diarrhea, stomach cramps, stomachache, headache, muscle pain, swelling of lymph nodes, joint pain, and/ or vomiting, depending on the infection. The symptoms can start hours to weeks after eating contaminated food.

If you are concerned that you have been infected with bacteria and/or parasites from meat or seafood,

ask your healthcare provider if there are tests to diagnosis the infection. In some cases, there might be medications that can treat the infection and reduce the chance of harm for your baby.

Does eating raw, undercooked, and/or cold meat and seafood increase the chance for miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. If the meat/seafood is infected with certain bacteria or parasites and a person who is pregnant becomes ill from eating it, there might be an increased chance of pregnancy loss. High fever can also increase risks to the baby. For more information on fever during pregnancy, please see our factsheet at <https://mothertobaby.org/fact-sheets/hyperthermia-pregnancy/>.

Does eating raw, undercooked, or cold meat and seafood increase the chance of birth defects?

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. When exposure to raw, undercooked, or cold meat and seafood happens, the chance for birth defects depends on whether the person who is pregnant becomes infected and by which parasite or bacteria.

For example, infants born to a person who had toxoplasmosis infection during the first trimester of pregnancy have about a 10-15% chance of being born with the infection themselves (called congenital toxoplasmosis). While the chance of passing the infection to the baby (transmission) increases later in pregnancy, the most observed effects are seen with first trimester infection. Some infants with congenital toxoplasmosis will have problems with the brain, eyes, heart, kidneys, blood, liver, or spleen. Other foodborne infections such as **E. coli**, **Listeria**, and **Salmonella** have not been associated with a higher chance of birth defects.

Would eating raw, undercooked, or cold meat and seafood increase the chance of other pregnancy related problems?

If the food is contaminated with bacteria or parasites and a person who is pregnant becomes infected, there can be

other risks to a pregnancy. This can include preterm delivery (birth before week 37) or pregnancy loss.

Parasite/Bacteria	Increased Chance of
Toxoplasma	Pregnancy loss
E coli	Preterm delivery and pregnancy loss
Salmonella	Pregnancy loss and infection of amniotic fluid
Listeria	Preterm delivery and pregnancy loss

Does eating raw, undercooked, or cold meat and seafood in pregnancy affect future behavior or learning for the child?

Toxoplasmosis infections can cause long-term problems for the baby, such as vision loss, hearing loss, or developmental delays. Many infected infants will have no problems at birth, but symptoms of congenital toxoplasmosis can happen months or even years after birth. For this reason, infants with congenital toxoplasmosis should be treated for the infection during the first year of life and then should be checked for problems over time.

Listeriosis infections are uncommon in newborns but can also increase the chance for long-term health complications in children. Newborns with **Listeria** infection can have symptoms of sepsis (blood infection) or meningitis after birth. Meningitis is a condition where there is swelling around the brain and spinal cord. If not treated quickly with antibiotics, the effects of meningitis can lead to long-term problems for some children.

Breastfeeding while eating raw, undercooked, or cold meat and seafood:

Breastmilk can help protect your baby from infections. There have been case reports suggesting **Salmonella** might be passed from a person who is breastfeeding to a nursing child. However, most people with these types of infections do not need to stop breastfeeding. Diarrhea and other symptoms of **E. coli** infection might lower milk supply. In the case of **E. coli** and **Salmonella** infections, be sure to practice good hand washing. If you suspect that the baby has symptoms, such as diarrhea, contact your child's healthcare provider. Be sure to talk to your healthcare providers about all your breastfeeding questions.

If a male eats raw, undercooked, or cold meat and seafood, can it make it harder to get a partner pregnant or increase the chance of birth defects?

Although most people get **Salmonella** or **E. coli** from eating contaminated foods or animals, these infections can also be passed from person to person. Wash hands often to help reduce the chance of passing the disease among people living in the house. In general, exposures that fathers or sperm donors have are unlikely to increase the risks to a pregnancy. For more information on paternal exposures, please see the MotherToBaby fact sheet 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](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). *OTIS/MotherToBaby encourages inclusive and person-centered language. While our name still contains a reference to mothers, we are updating our resources with more inclusive terms. Use of the term mother or maternal refers to a person who is pregnant. Use of the term father or paternal refers to a person who contributes sperm.* Copyright by OTIS, January 1, 2024.