



Food-Borne Risks in Pregnancy

Question: I've recently heard some new information from my friend who is pregnant. She has been told not to eat the following items while pregnant (in addition to the mercury/fish, feta cheese and raw fish information): No hotdogs, no deli meat, no soft cheeses. Is it possible for you to tell me why this is? Is it nitrates? Bacteria? Is coop deli meat ok? I am wondering about the rationale behind this.

Thanks for opening the discussion on a topic about which I receive many questions! Your comments point to the problem of top-down health care, in which we are told what to do but are rarely offered rationales and almost never in an individualized way that takes into account our personal decision-making powers.

Fish, meat, and dairy are nutrient-dense foods prioritized by many societies throughout history for pregnant and lactating women and craved by many women during pregnancy. Traditionally, cultural rules governing food preparation almost always have to do with animal-derived foods, indicating that health issues and related advice are nothing new.

I wish I could say to my many vegan clients that they never have to worry about food-borne pathogens, however the risks are pervasive throughout our food system. Raw sprouts and vegetables and fresh juices can be contaminated from water or sewage slurry sprayed on crops and soil or from contact with affected hands, utensils, and cutting boards.

Generally speaking, when a pregnant woman is told to avoid certain foods in pregnancy, it is with the following trouble-makers in mind: mercury, *Listeria monocytogenes*, *Toxoplasma gondii*, *Salmonella*, *E. coli*, and any other harmful microbe that might be making local news. Ingredients such as nitrates, which many of us certainly would avoid in pregnancy, are not considered food contaminants by the FDA or CDC, because they are not proven teratogens, in other words they have not been demonstrated to cause congenital defects or developmental problems.

Mercury is a silvery fluid heavy metal that has both a Roman god and the planet nearest the sun named after it. Mercury becomes a problem when there are high amounts of it in our environment, as there may be from coal plants and other industries, crematories (due to dental fillings), and household items (such as mercury-containing thermometers). Mercury released from these sources into the air and waterways breaks down into methylmercury, which accumulates over time in tissues of fish, humans, and other animals and can cause learning delays and health problems. A fetus's risk to methylmercury exposure is therefore partly determined by his or her mother's lifetime exposure. The most common route of methylmercury exposure in America is through eating fish.

New FDA/EPA guidelines give us three tips to go by: **1.** Do not eat shark, swordfish, king mackerel or tilefish, because they live a long time and have accumulated more methylmercury; **2.** Eat up to 12 oz or 2 average meals a week of fish and shellfish low in mercury, including shrimp, canned light tuna (NOT albacore or white tuna), salmon, Pollock, catfish; **3.** For fish caught in local lakes and rivers, check local advisories through your county public health department or www.epa.gov/ost/fish. Game fish contaminated by mercury (including bluefish, striped bass, salmon, trout, and pike) may also be contaminated by PCBs, another industrial pollutant that has been linked to learning problems,

decreased IQ, and reduced birth weight. The EPA has taken actions to control environmental mercury, which you can read about at www.epa.gov/mercury. For personal involvement, contact the Sierra Club, which has recently launched a mercury awareness and reduction campaign.

All fish should be cooked until flakey and opaque to kill disease-causing bacteria. Sushi and other raw fish and shellfish can be polluted by raw sewage and lead to severe gastrointestinal illness with diarrhea, cramping and fever, which in pregnant women can have serious implications such as infection or preterm labor.

Listeriosis is a bacterial infection that can present in an epidemic form and is clearly associated with contamination of food, as well as direct contact with infected cattle, sheep, birds, or manure. It is particularly dangerous for immunocompromised persons, such as fetuses or neonates. Maternal infection is most often mild with few or no symptoms. For infected babies, however, there are high rates of miscarriage, preterm delivery, and stillbirth and mortality. The bacterium has been found in raw meat and dairy products, raw vegetables, minimally processed cheeses such as feta, Brie, Camembert, or Roquefort, and ready-to-eat meats, pates, or left-overs. High heat kills listeria, so thoroughly cook and reheat all meats, especially refrigerated and deli meats. Due to the nature of commercial dairy and produce industries, I agree with the FDA recommendation of pasteurized (heatprocessed) juices and dairy products in pregnancy. However, women who are intimate with their farmers' and grocers' practices, as many of us in the Madison-area are lucky enough to be, I believe may justify continuing to choose raw dairy and juices in pregnancy for the nutritional superiority of these foods. Raw fruits and veggies should be thoroughly washed. Hands, knives, and cutting boards should be washed well after use with any raw food.

A special note on cutting boards: very fine UW research some years ago showed wooden cutting boards to be naturally more aseptic than plastic cutting boards. Bacteria flourished on the plastic boards more readily and more persistently.

Toxoplasmosis is a parasitic infection found in all types of mammals and some birds. It is one of the most common infections in the world and most cases go undiagnosed, unless the infected person is immunocompromised. Humans acquire the organism by eating raw or undercooked meat of an infected animal or from exposure to the feces of an infected cat. Cats acquire toxoplasmosis by eating infected rodents, birds or raw meat. If a woman has acquired the infection at least 6 months prior to pregnancy there is almost no danger of passing it to her unborn baby. (If you have grown up with cats, on a working farm, and/or in a cultural tradition of eating raw meat products, there is a good chance you are already infected.) However, if a woman contracts toxoplasmosis for the first time in pregnancy, her baby may develop severe disabilities or die. All the recommendations listed above for meat and raw foods apply to toxoplasmosis prevention. Pork, lamb, and goat products are the most likely animal foods to be infected with toxoplasmosis. Freezing, as well as high heat, kills the toxoplasmosis parasite.

The above recommendations for food safety also apply to prevention of infection by Salmonella, E. coli and other pervasive pathogens. For salmonellosis prevention, commercial eggs should be thoroughly cooked, and foods with raw egg ingredients avoided, such as hollandaise sauce and egg nog.

Recently, a pregnant woman in my office saw the new glossy, user-friendly FDA pamphlet, What You Need to Know About Mercury in Fish and Shellfish – and her face dropped. “That makes me so sad,” she said. I looked at her sorrowful expression and realized what is wrong with those smiling-faced pamphlets – they are too happy! The FDA, EPA, as well as March of Dimes, National

Institutes for Health and related organizations fail to guide us through the global tragedies that lie behind their guidelines, the human choices that continue to poison waterways and food chains.

The bottom-line on the guidelines is this: the best way of avoiding harmful exposures and infections is by nourishing health, whether in soil, water, animals, or ourselves. Research has shown that organic eggs are far less likely to carry Salmonella, and I suspect that if more such studies were done, we would find that wherever birds, fish and animals are most healthy and whole, pregnant women and babies are too.

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This text was originally published in the Willy Street Co-op Reader in the **Ask the Midwife** column, where Ingrid Andersson of Community Midwives, LLC in Madison, answers questions on pregnancy, childbirth and related topics. More of these articles can be found at Ingrid's website: www.gentlehomebirth.org