

PRIMARY PREVENTION OF PRENATAL INFECTION USING THE MNEMONIC “HYGIENE”

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- H andwashing helps
- Y es to prenatal care
- G ood food prepared safely
- I mmunizations
- E vade others' bodily fluids
- N o to unnecessary invasive procedures
- E nvironmental precautions

Many types of infection can be prevented
with healthy pregnancy behaviors




H ANDWASHING HELPS



HANDWASHING HELPS


- Routine handwashing is an easy way to reduce the risk for prenatal infection!
- Wash hands with soap and water for at least 20 seconds especially after:
 - Changing a diaper
 - Feeding a young child
 - Wiping a young child's nose or drool
 - Gardening or contact with soil or sand



HANDWASHING HELPS

- Handwashing can help prevent infections such as influenza, cytomegalovirus (CMV), and toxoplasmosis
- Handwashing vs. Hand sanitizer
 - If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol, and wash with soap and water as soon as possible.

<https://www.cdc.gov/handwashing/pdf/hand-sanitizer-factsheet.pdf>




YES TO PRENATAL CARE



YES TO PRENATAL CARE

- Having urine cultured for bacteria at the first prenatal visit is important so treatment can be planned if necessary.
 - Urine culture for GBS and other bacteria
- See a provider if they have any vaginitis symptoms. Medications for yeast infections are not effective against bacteria.
- Encourage women to keep a copy of all test results with them to have ready when arriving at the hospital to give birth.
- See a dentist for cleaning and checkups as part of routine prenatal care.

https://www.cdc.gov/oralhealth/periodontal_disease/index.htm




G GOOD FOOD PREPARED SAFELY



GOOD FOOD PREPARED SAFELY

- **Avoid the following:**
 - Unpasteurized milk
 - Cheese made from unpasteurized milk
 - Raw or undercooked meat or poultry
 - Hot dogs and lunch or deli meats unless heated until steaming hot just before serving
 - Certain fish and shellfish



GOOD FOOD PREPARED SAFELY

- **Use special care in food handling:**
 - ▣ Peel or wash fruits and vegetables
 - ▣ Store raw meat separately from other foods
 - ▣ Avoid getting fluid from hot dog packages on other surfaces
 - ▣ Wash cutting boards and counters after contact with raw meat, poultry, seafood, or unwashed fruits and vegetables

J. H. Collins. (2002) Fetal Demise From Food Poisoning. The Female Patient. Vol 27



IMMUNIZATIONS




IMMUNIZATIONS

- **Make sure immunizations are up-to-date, ideally before becoming pregnant**
- Providers should check if the patient is immune to rubella and chickenpox, both can cause stillbirth and serious birth defects
 - ▣ These vaccines can't be given during pregnancy so avoid contact with anyone infected if they are not immune
- Recommend flu shots as the flu may increase the risk of premature birth and birth defects

<https://www.cdc.gov/flu/professionals/vaccination/vaccination-possible-safety-sign>
<https://www.aafp.org/news/health-of-the-public/20170920flumiscarry.html>




E VADE OTHERS' BODILY FLUIDS



EVADE OTHERS' BODILY FLUIDS


- Staying clear of others' saliva, urine, blood, semen, and other bodily fluids can help women keep their baby safe.
- Stay clear of people who are coughing and sneezing
- Always use safe sex precautions. New partners can introduce germs, including through oral sex.
- Be careful to not come into contact with used needles, blood, or open sores and don't share toothbrushes and razors

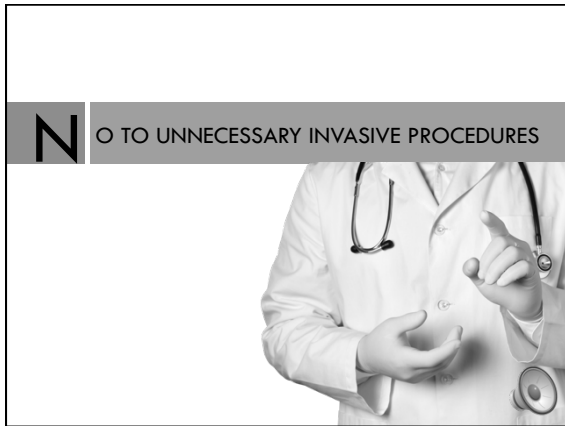
<https://www.cdc.gov/parvovirusb19/pregnancy.html>
<https://www.lymedisease.org/lyme-sexual-transmission-2/>



EVADE OTHERS' BODILY FLUIDS

- Pregnant women are most commonly exposed to CMV through the saliva and urine of young children. Use these precautions:
 - Don't share food, drink, eating utensils, and toothbrushes with young children
 - Don't put a child's pacifier in your mouth
 - Avoid contact with saliva when kissing a child
 - Clean toys and surfaces that come into contact with children's saliva and urine






NO TO UNNECESSARY INVASIVE PROCEDURES

- Avoid unnecessary, frequent, or forceful internal exams which may push microorganisms closer to the baby. Some microorganisms, such as group B strep, can cross intact membranes. Vaginal or perineal ultrasounds are less invasive options.
- Informed consent forms are suggested


<https://www.ncbi.nlm.nih.gov/pubmed/9396886#doi=Abstract>
<https://www.ncbi.nlm.nih.gov/pubmed/12039108>
<https://www.ncbi.nlm.nih.gov/pubmed/9738989>




NO TO UNNECESSARY INVASIVE PROCEDURES

- Early in pregnancy, discuss risks vs. benefits of stripping membranes.
- Fetal membrane stripping (or sweeping) is erroneously assumed to hasten the onset of labor or prevent post-term pregnancy.
 - Little formal study
 - Evidence-based alternatives include waiting for the onset of labor and other means of induction

Cochrane Analysis




E NVIRONMENTAL PRECAUTIONS



ENVIRONMENTAL PRECAUTIONS

- Pregnant women should be aware:
 - ▣ Risks posed by family pets
 - ▣ Changing cat litter


http://www.cfsph.iastate.edu/FastFacts/pdfs/lymphocytic_choriomeningitis_E.pdf
<https://www.cdc.gov/vhf/lcm/transmission/index.html>
https://www.cdc.gov/parasites/toxoplasmosis/gen_info/pregnant.html



ENVIRONMENTAL PRECAUTIONS

- Pregnant women should be aware of the following:
 - ▣ Wear gloves when gardening
 - ▣ Walk in the center of trails to avoid ticks
 - ▣ Remove sources of standing water around their home to avoid mosquitoes breeding

<https://www.epa.gov/mosquitocontrol/bti-mosquito-control>



HYGIENE

Care providers play an important role in educating their patients about the mnemonic "HYGIENE"

