Preparing for Parenthood: Pregnancy and Labor
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How Much Do You Know About Preconception Health?

Preconception Health Quiz
(click on link)
Why Preconception Health Matters

Preconception health is a woman’s health before she becomes pregnant
• Food
• Habits
• Medicines
• Health problems
Five Most Important Things to Boost Your Preconception Health

• Take folic acid
• Stop smoking and drinking alcohol
• Keep medical conditions under control

• Discuss with your doctor any medicine you are using
• Avoid toxic substances or materials
Talk to Your Doctor Before You Become Pregnant

- Family planning and birth control
- Vaccines and screenings
- Managing health problems
- Ways to improve your overall health
- How to avoid illness
- Hazards in your workplace or home
- Health problems that run in your or your partner's family
Steps Women Can Take for Healthier Babies

- Take folic acid every day
- Keep hands clean
- See a health care professional regularly
- Eat a balanced diet
# Essential Minerals During Pregnancy

Be sure to get these 12 important minerals for you and your baby’s health:

<table>
<thead>
<tr>
<th>Calcium</th>
<th>Magnesium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>Manganese</td>
</tr>
<tr>
<td>Copper</td>
<td>Molybdenum</td>
</tr>
<tr>
<td>Fluoride</td>
<td>Phosphorous</td>
</tr>
<tr>
<td>Iodine</td>
<td>Selenium</td>
</tr>
<tr>
<td>Iron</td>
<td>Zinc</td>
</tr>
</tbody>
</table>
Weight Gain During Pregnancy

- 1 to 4 pounds *total* during the first 3 months (first trimester)
- 2 to 4 pounds *per month* during the 4th to 9th months (second and third trimesters)
Checklist of Foods to Avoid During Pregnancy

Checklist of Foods
(click on link)
The Beginning of Pregnancy

Ovulation and Due Date Calculator
(click on link)
Signs of Pregnancy

- Headache
- Fatigue
- Breast swelling and tenderness
- Food aversions
- Sensitivity to smells
- Frequent urination
- Nausea and vomiting
- Shortness of breath
- Physical changes
Complications of Pregnancy

Signs of Complications

- Vaginal bleeding
- Abnormal weight gain
- Severe abdominal pain
- Persistent headaches
- Urinary complications

- Fever
- Severe vomiting
- Unusual and excessive swelling of the face and hands
- Dizziness
- Vision problems
# Complications During Pregnancy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Symptoms</th>
<th>Effects on Mother and Infant</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestational Diabetes</td>
<td>Unusually high amounts of sugar in urine</td>
<td>Mother: May give birth prematurely</td>
<td>Insulin injections; modified diet; bed rest in a hospital past 32 weeks; Caesarean delivery if the infant is too large to pass through the pelvic area</td>
</tr>
<tr>
<td>(Fertilized egg implants in a fallopian tube instead of uterus)</td>
<td></td>
<td>Infant: Grows too quickly and may become too large to be carried to full term; early delivery of a large but premature infant will require special medical care</td>
<td></td>
</tr>
<tr>
<td>Ectopic Pregnancy</td>
<td>Vaginal bleeding; abdominal pain; cramping; dizziness; fainting</td>
<td>Mother: May cause sterility if both fallopian tubes are damaged; increased chance of future pregnancies being ectopic</td>
<td>Immediate operation; possible removal of injured section of tube; if tube ruptures and massive hemorrhaging occurs, tube and ovary may have to be removed</td>
</tr>
<tr>
<td>Premature Labor</td>
<td>Flow of fluid from vagina; abdominal contractions</td>
<td>Mother: Medications given may have side effects such as increase in heart beat, breathing problems, high blood pressure, and increase in blood sugar</td>
<td>Bed rest under a doctor's supervision; administration of medications that may stop premature labor</td>
</tr>
<tr>
<td>Hydramnios</td>
<td>Excessive amount of amniotic fluid surrounding infant; breathlessness; indigestion or nausea; premature labor; intense abdominal pain</td>
<td>Mother: May give birth prematurely</td>
<td>Ultrasound examination to determine severity; additional rest; possible hospitalization with sedation; medication to relax uterus to reduce chance of premature labor; amniocentesis may be used to remove excess fluid</td>
</tr>
<tr>
<td>Condition</td>
<td>Description</td>
<td>Mother:</td>
<td>Infant:</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Incompetent Cervix</td>
<td>Cervix opens during second trimester or early in the third trimester</td>
<td>Miscarriage or premature birth</td>
<td>Special medical care may be required for premature birth</td>
</tr>
<tr>
<td>Preeclampsia</td>
<td>Increasingly high blood pressure; accumulation of fluid in the body; protein present in urine; puffiness in face and hands; sudden, abnormal weight gain; severe headaches; vision problems</td>
<td>Progression to eclampsia</td>
<td>No effect unless it progresses to eclampsia</td>
</tr>
<tr>
<td>Eclampsia (next stage of uncontrolled preeclampsia)</td>
<td>Same symptoms as preeclampsia plus pain in upper right portion of abdomen and seeing flashing lights; convulsions; unconsciousness</td>
<td>May cause death</td>
<td>May cause death</td>
</tr>
<tr>
<td>Premature Rupture of Membranes</td>
<td>Flow of fluid from vagina because membranes surrounding fetus rupture before fetus is ready to be born</td>
<td>Infection</td>
<td>Premature delivery</td>
</tr>
<tr>
<td>Placenta Previa</td>
<td>Painless vaginal bleeding caused when placenta is positioned partly or completely over the cervix</td>
<td>Hemorrhaging</td>
<td>Brain damage or death</td>
</tr>
</tbody>
</table>
Inside Pregnancy: Fertilization

Fertilization
(click on link)
Stages of Prenatal Development

Period of the Zygote

Period of the Embryo

Period of the Fetus
Inside Pregnancy

The Beginning of Life
(click on link)
Monthly Prenatal Development

By monitoring the development of the infant through her or his size and body structure, the doctor can determine more accurately the expected date of birth.
Slideshow: Fetal Development Month by Month

Fetal Development
(click on link)
## Prenatal Development

<table>
<thead>
<tr>
<th>Month</th>
<th>Development</th>
<th>Effects on Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Month</strong></td>
<td>• Cells multiply.</td>
<td>• Missed menstrual period.</td>
</tr>
<tr>
<td></td>
<td>• Zygote attaches to the lining of the uterus.</td>
<td>• Other signs of pregnancy may not yet be noticeable.</td>
</tr>
<tr>
<td></td>
<td>• Infant’s heart begins to beat and the internal organs and circulatory system begin to form.</td>
<td></td>
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<tr>
<td></td>
<td>• By the end of the month, small bumps form that will later be arms and legs.</td>
<td></td>
</tr>
<tr>
<td><strong>Second Month</strong></td>
<td>• Embryo is about 1/4 in. long.</td>
<td>• Breasts begin to swell.</td>
</tr>
<tr>
<td></td>
<td>• Bones begin to form.</td>
<td>• Pressure on bladder from enlarging uterus results in need to urinate more frequently.</td>
</tr>
<tr>
<td></td>
<td>• Internal organs begin to develop.</td>
<td>• Possible nausea (&quot;morning sickness&quot;).</td>
</tr>
<tr>
<td></td>
<td>• Face, eyes, ears, and limbs take shape.</td>
<td>• Fatigue is common.</td>
</tr>
<tr>
<td><strong>Third Month</strong></td>
<td>• Fetus is about 1 in. long at the beginning of the month.</td>
<td>• Breasts become firmer and full and may ache.</td>
</tr>
<tr>
<td></td>
<td>• Formation of the nostrils, eyelids, lips, mouth, and teeth buds.</td>
<td>• Nausea, fatigue, and frequent urination may continue.</td>
</tr>
<tr>
<td></td>
<td>• Fingers and toes near complete formation.</td>
<td>• Abdomen becomes slightly larger. Uterus has grown to about the size of an orange.</td>
</tr>
<tr>
<td></td>
<td>• All organs are present but not yet mature.</td>
<td>• Weight gain totals 2 to 4 lb.</td>
</tr>
<tr>
<td><strong>Fourth Month</strong></td>
<td>• Fetus is about 3 in. long and weighs 1 oz. at the beginning of the month.</td>
<td>• Changes in size continue slowly.</td>
</tr>
<tr>
<td></td>
<td>• Fetus is able to suck its thumb, swallow, hiccup, and move around in the uterus.</td>
<td>• Most discomforts of early pregnancy are usually gone by now.</td>
</tr>
<tr>
<td></td>
<td>• Facial features become clearer.</td>
<td>• Appetite increases.</td>
</tr>
<tr>
<td><strong>Fifth Month</strong></td>
<td>• Fetus is about 6 1/2 to 7 in. long and weighs 4 to 5 oz. at the beginning of the month.</td>
<td>• Enlarged abdomen becomes apparent.</td>
</tr>
<tr>
<td></td>
<td>• Hair, eyelashes, and eyebrows appear.</td>
<td>• Slight fetal movements are felt.</td>
</tr>
<tr>
<td></td>
<td>• Teeth continue to develop.</td>
<td>• Fetal heartbeat may be heard through a stethoscope.</td>
</tr>
<tr>
<td></td>
<td>• Organs mature.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fetal activity increases.</td>
<td></td>
</tr>
</tbody>
</table>

*First Trimester: Period of the Embryo

*Second Trimester: Period of the Fetus*
# Prenatal Development

<table>
<thead>
<tr>
<th>Month</th>
<th>Development</th>
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</thead>
</table>
| **Sixth Month** | • Fetus is 8 to 10 in. long and weighs about 8 to 12 oz.  
• Fat is deposited under the skin, but the fetus still appears wrinkled.  
• Breathing movements begin. | • Fetal movements have become strong kicks, thumps, and bumps. Some may be visible.  
• Weight gain may total about 10 to 12 lb. at the beginning of this month. |
| **Seventh Month** | • Fetus is about 10 to 12 in. long and weighs about 1 1/2 to 2 lb.  
• Periods of fetal activity are followed by periods of rest and quiet. | • Increased size is beginning to affect posture.                                   |
| **Eighth Month** | • Fetus gains weight rapidly.  
• Fetus is about 14 to 16 in. long and weighs about 2 1/2 to 3 lb.  
• Fetus may react to loud noises with a reflex jerking action.  
• Fetus has usually moved into the head-down position during this month. | • May have discomfort as size increases. Backaches, leg cramps, shortness of breath, and fatigue are common.  
• Fetal kicks continue to be felt. Mother’s rest may be disturbed.  
• Weight gain at the beginning of this month may total 18 to 20 lb. |
| **Ninth Month** | • Fetus is about 17 to 18 in. long and weighs about 5 to 6 lb. at the beginning of the month.  
• Weight gain continues until the week before birth.  
• Skin becomes smooth as fat deposits continue.  
• Fetal movements decrease as the fetus has less room for movement.  
• Fetus acquires disease-fighting antibodies from the mother’s blood.  
• Fetus descends into the pelvis, ready for birth. | • “Lightening” is felt as the fetus drops into the pelvis. Breathing is easier now.  
• Other discomforts of late pregnancy may continue.  
• Total weight gain of 24 to 30 lb. Uterus is the size of a small watermelon by the time of birth.  
• False labor pains may occur. |

First Trimester of Pregnancy

3-D Video on the First Trimester

Weeks 10-14 First Trimester

(click on links)
Second Trimester of Pregnancy

Weeks 15-20 Second Trimester
(click on links)
Second Trimester of Pregnancy

Weeks 21-27 Second Trimester
(click on link)
Third Trimester of Pregnancy

Weeks 28-37 Third Trimester
(click on link)
Types of Delivery

- Cesarean Section
- Epidural
- Natural Childbirth
- Leyoyier Method
- Crouching Method
- Birth in Water
- Home Delivery
The Birth Process

Labor begins about thirty-eight weeks after conception for a full-term pregnancy.
First Stage of Labor

• Dilation stage
• Contractions become stronger, more frequent and last longer
• May last for an average of ten to twelve hours
Second Stage of Labor

- Cervix is completely dilated
- Crowning occurs
- Expulsion of the infant
- An episiotomy may need to be performed
This stage is the expulsion of the placenta
Questions?
References and Resources

Images:
Microsoft Clip Art: Used with permission from Microsoft

Textbook:

Websites:
Centers for Disease Control and Prevention
Pregnancy-What You Should Know
http://www.cdc.gov/ncbddd/pregnancy_gateway/index.html
Centers for Disease Control and Prevention
Some steps a woman can take to get ready for a healthy pregnancy
http://www.cdc.gov/Features/HealthyPregnancy
Centers for Disease Control and Prevention
You’re Pregnant: Now What?
http://www.womenshealth.gov/pregnancy/you-are-pregnant/
Exploring Birth Options
Witness the wonderful emotions and deeply felt connection to womanhood in this short preview to our series exploring natural childbirth, midwifery, and your birth options.
http://www.mothersnaturally.org/videoSeries/
References and Resources

Gerber
Essential minerals for pregnancy-Be sure to get these 12 important minerals for you and your baby’s health. You can meet many of your daily mineral needs by eating a well-balanced diet.

Immunizations and Pregnancy
Before becoming pregnant, a woman should be up-to-date on routine adult vaccines.

Pregnancy
Becoming a mother is one of the most exciting times in a woman’s life. This section of womenshealth.gov will help you learn what you can do before, during, and after pregnancy to give your baby a healthy start to life.
http://www.womenshealth.gov/pregnancy/

YouTube™ videos included in the PowerPoint™:
Preconception Health Quiz
How much do you know about preconception health? Take this true/false quiz to find out.

Ovulation and Due Date Calculator
Use this calculator to find out when you are most likely to become pregnant and to estimate your due date should conception occur.

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Inside Pregnancy: Fertilization
The race starts with the act of love. Tens of millions of spermatozoa rush ahead on a hunting trip that may eventually lead to a fateful encounter and a promise of new life.
http://www.babycenter.com/2_inside-pregnancy-fertilization_10354435.bc

Inside Pregnancy: Weeks 1-9
A 3D animated look at baby development in the first trimester of pregnancy, from the first few cells that make up the blastocyst to a tiny fetus with a brain, beating heart, fingers, eyes, and earlobes.
http://www.babycenter.com/2_inside-pregnancy-weeks-1-to-9_10302602.bc

Inside Pregnancy: Weeks 10-14
A 3D animated look at baby development in the second trimester of pregnancy
http://www.babycenter.com/2_inside-pregnancy-weeks-10-to-14_10308108.bc

Inside Pregnancy: Weeks 15-20
A 3D animated look at baby development in the third trimester of pregnancy
http://www.babycenter.com/2_inside-pregnancy-weeks-15-to-20_10308111.bc

Inside Pregnancy: Weeks 21-27
A 3D animated look at baby development in the second trimester of pregnancy
http://www.babycenter.com/2_inside-pregnancy-weeks-21-to-27_10312242.bc

Inside Pregnancy: Weeks 28-27
A 3D animated look at baby development in the third trimester of pregnancy,
http://www.babycenter.com/2_inside-pregnancy-weeks-28-to-37_3658874.bc