



SESSION

6

**Staying
Healthy
During
Pregnancy**

**DMCPG-SH
Staying Healthy
During Pregnancy**

STATEMENT OF PURPOSE

This session provides information about preventing complications for women with pre-gestational and gestational diabetes and their babies.

PREREQUISITES

It is recommended that participants have a basic understanding of the information in *BB*, Session #1: *Diabetes, Pregnancy and You* prior to presenting this session.

LEARNING OBJECTIVES

- DMCPG-SH-1 Describe two or more things the mother can do for self-care to reach and stay at target blood sugar goals during pregnancy.
- DMCPG-SH-2 State two or more potential problems for the mother during pregnancy.



- DMCPG-SH-3 State two or more potential problems for the baby if the mother's blood sugar is high during pregnancy.
- DMCPG-SH-4 Describe two or more tests, procedures or examinations needed during pregnancy.
- DMCPG-SH-5 State two or more guidelines for when to talk right away with a health care provider during pregnancy.
- DMCPG-SH-GS State or write a personal plan to reach and stay at target blood sugar goals during pregnancy.

CONTENT

Complications with pregnancy and diabetes.

MATERIALS NEEDED

Visuals Provided

- #1 *Target Blood Sugar Goals for Pregnancy*
- #2 *Gestational Diabetes—How to Have a Healthy Baby*
- #3 *Staying Healthy with Gestational Diabetes*
- #4 *Staying Healthy with Pre-gestational Diabetes*
- #5 *Taking Care of Your Kidneys*
- #6 *Urine Ketone Testing*
- #7 *Gestational Diabetes Checklist*
- #8 *Pre-gestational Diabetes Checklist*
- #9 *Baby Growing*
- #10 *Kick Count*
- #11 *Changes I Can Make*

Additional Resources

- Local resource list
- Pre-gestational and gestational diabetes videos
- Pregnancy Planning and Care for Women With Diabetes*
- Taking Care of Gestational Diabetes*

METHOD OF PRESENTATION

Instructors need to review *BYLD*, Session #9: *Balancing Your Blood Sugar*, Session #10: *Staying Healthy with Diabetes*, and Session #12: *Planning for Pregnancy* prior to presenting this session.

Start by introducing yourself. Use a creative icebreaker. (See *BYLD* Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves, their family and how they live with pregnancy and diabetes. Explain that the purpose of this session is to provide information on preventing problems for mother and baby. Instructors need to tailor the content to the different needs of participants with pre-gestational and gestational diabetes.



Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. Have a variety of teaching tools available based on participant’s learning needs. Be creative and encourage interaction. Use real life situations for discussion. A videotape or audiotape may be used to introduce content if available.

The instructor needs to be familiar with their local facility policies for prenatal care and testing. Be aware of community issues/taboos relating to discussion of problems and potential complications. Use words/questions appropriate for the community. It is important to begin discussing ways to prevent problems early in pregnancy in order to increase the chance of a healthy pregnancy.

CONTENT OUTLINE

Objective	Content	Instructor’s Notes
<p>DMCPG-SH-1. Describe 2 or more things the mother can do for self-care to reach and stay at target blood sugar goals during pregnancy.</p>	<p>Keeping blood sugar at target goals during pregnancy helps a woman stay healthy and have a healthy baby.</p> <p>These are ways to reach and stay at target blood sugar goals during pregnancy:</p> <ul style="list-style-type: none"> • make healthy food choices • be active 	<p>Ask, “What have you been doing to stay at your blood sugar goals during pregnancy?” List/discuss responses.</p> <p>Acknowledge that staying at target blood sugar goals can be hard.</p> <p>Review Visual #1: <i>Target Blood Sugar Goals for Pregnancy</i>.</p> <p>Visual #2: <i>Gestational Diabetes—How To Have a Healthy Baby</i>, pp. 11-16</p> <p>Emphasize the importance of keeping food records.</p> <p>The meal plan may change during pregnancy. See <i>BB</i>, Session #2: <i>Healthy Eating During Pregnancy</i> for information on healthy food choices.</p> <p>Refer participants to a registered dietitian for an individualized meal plan.</p> <p>Emphasize the importance of talking with the health care team about safe physical activity that can be done every day. See <i>BB</i>, Session #3: <i>Moving to Stay Healthy During Pregnancy</i> for information on safe physical activity.</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-1. (continued)</p>	<ul style="list-style-type: none"> • take insulin (if needed) • check blood sugar often • keep appointments with the health care team 	<p>Most women with <u>pre-gestational diabetes</u> will need to take insulin during pregnancy.</p> <p>For women with <u>gestational diabetes</u>, insulin is needed if target blood sugar goals are not reached with food choices and physical activity. Reassure women with gestational diabetes this does not mean that their diabetes is “getting worse.” The placenta makes hormones that can cause the body’s own insulin to not work as well. The amount of these hormones increases as the pregnancy progresses. See <i>BB</i>, Session #4: <i>Medicine During Pregnancy</i> for information on diabetes medicine.</p> <p>Women need to check blood sugar at least 4 times a day to learn if the balance of food, activity and insulin (if needed) is working and if they need to make changes. See <i>BB</i>, Session #5: <i>Blood Sugar Monitoring During Pregnancy</i> for information on checking blood sugar.</p> <p>Emphasize the importance of writing blood sugar numbers in a logbook.</p> <p>How often a woman needs to see the health care team depends on her individual needs. Most women will need to visit their health care team more than once a month. See <i>BB</i>, Session #1: <i>Pregnancy, Diabetes and You</i>, for more information on the health care team and Session #6: <i>Staying Healthy During Pregnancy—Objective 4</i> for information on care during pregnancy.</p>



Objective	Content	Instructor’s Notes
DMCPG-SH-1. (continued)	<p>It is also important to avoid alcohol and tobacco during pregnancy.</p>	<p>Ask, “Has anyone seen a doctor who specializes in pregnancy and diabetes? If so, are you willing to share your experience?” List/discuss responses.</p> <p>Emphasize the importance of this. Alcohol and tobacco can harm the mother and baby. Provide local <i>resource list</i>.</p>
DMCPG-SH-2. State 2 or more potential problems for the mother during pregnancy.	<p>Some of the potential problems for the mother with <u>pre-gestational or gestational diabetes</u> include:</p> <ul style="list-style-type: none"> • bladder or kidney infection 	<p>Ask, “Are there any worries you have about possible problems during your pregnancy, or have you heard about any problems for mothers in the community?” List/discuss responses.</p> <p>Visual #3: <i>Staying Healthy with Gestational Diabetes</i> and Visual #4: <i>Staying Healthy with Pre-gestational Diabetes</i> Use the handout appropriate for the participant.</p> <p>High blood sugar during pregnancy increases the mother’s chance of problems.</p> <p>The longer the blood sugar stays high, the greater the chance of problems. When the mother’s blood sugar is at target goal, her chance of problems is much less.</p> <p>Emphasize that a woman with diabetes can have a healthy pregnancy.</p> <p>Visual #5: <i>Taking Care of Your Kidneys</i> Bladder or kidney infection (also called urinary tract infection or UTI) is more common in women with pregnancy and diabetes. Emphasize the need to talk with the health care provider right away</p>



Objective	Content	Instructor’s Notes
DMCPG-SH-2. (continued)	<ul style="list-style-type: none"> • ketones in the urine • pre-eclampsia 	<p>if the woman has pain, burning or other problems when urinating.</p> <p>Visual #6: <i>Urine Ketone Testing</i> Ketones in the urine may be caused by:</p> <ul style="list-style-type: none"> • not eating enough food • not drinking enough water • high blood sugar • illness <p>Ketones may cause problems for the mother and baby. Urine ketones are tested every clinic visit.</p> <p>The mother may be taught to test ketones at home. Check local policy on home urine ketone testing. Provide instruction on home testing and record keeping as appropriate.</p> <p>A woman may have pre-eclampsia if she has:</p> <ul style="list-style-type: none"> • high blood pressure • protein in the urine • swelling in the hands, face and feet <p>Emphasize that this can cause serious problems for the mother and baby and needs care right away. Treatment may require hospitalization and/or bed rest.</p> <p>Review target blood pressure goals. See <i>BYLD, Session #8: Knowing Your Numbers—ABC</i> for information on blood pressure goals.</p> <p>Emphasize the importance of telling their health care provider right away if they have:</p> <ul style="list-style-type: none"> • swelling of the face, hands or feet • headache <p>Note: A little swelling may be normal.</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-2. (continued)</p>	<ul style="list-style-type: none"> • too much fluid around the baby • early labor and delivery • low blood sugar <p>Additional potential problems for the mother with <u>pre-gestational diabetes</u> include:</p> <ul style="list-style-type: none"> • pregnancy may make some of the long-term problems of diabetes worse, including: <ul style="list-style-type: none"> - kidney problems (nephropathy) - eye problems (retinopathy) - heart disease - high blood pressure 	<p>The fluid around the baby is called amniotic fluid. Too much amniotic fluid is also called polyhydramnios. Too much fluid may mean:</p> <ul style="list-style-type: none"> • the mother’s blood sugar is not at target goal • the baby has problems <p>Too much fluid around the baby may lead to:</p> <ul style="list-style-type: none"> • the mother’s water breaking too soon • early labor and delivery <p>Early labor is also called pre-term labor. Emphasize the need to talk to the health care provider right away if they are having contractions.</p> <p>This is also called hypoglycemia. Women who take insulin during pregnancy have a greater chance of low blood sugar. They need to know prevention, symptoms and treatment of low blood sugar. Review <i>BYLD</i>, Session #9: <i>Balancing Your Blood Sugar</i> as appropriate. Emphasize that pregnant women have more chance of low blood sugar whether they are on insulin or not.</p> <p>Visual #4: <i>Staying Healthy with Pre-gestational Diabetes</i></p> <p>Reaching target blood sugar goals may help prevent problems.</p> <p>Recognize that these problems may be hard for participants to talk about.</p> <p>The health care provider will check the mother’s blood pressure, heart, nerves, kidneys and eyes. See <i>BYLD</i>, Session #10: <i>Staying Healthy with Diabetes</i> for information on long-term diabetes problems.</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-3. State 2 or more potential problems for the baby if the mother’s blood sugar is high during pregnancy.</p>	<p>High blood sugar during pregnancy increases the baby’s chance of problems.</p> <p>With <u>pre-gestational or gestational diabetes</u>, some of the potential problems for the baby include:</p> <ul style="list-style-type: none"> • breathing problems • birth weight more than 9 pounds • a baby with low blood sugar • jaundice • a stillbirth 	<p>Ask, “Are you worried about possible problems for the baby?” List/discuss responses.</p> <p>When the mother’s blood sugar is at target goal, the baby’s chance of problems is much less.</p> <p>Emphasize that a woman with diabetes can have a healthy baby.</p> <p>Visual #2: <i>Gestational Diabetes—How to Have a Healthy Baby</i>, p. 8</p> <p>High blood sugar can lead to early delivery. Breathing problems happen because the baby’s lungs may not be developed if they are born early.</p> <p>This is called macrosomia. Extra sugar from the mother’s blood causes the baby to get extra calories and grow too big. Large babies can lead to difficult deliveries.</p> <p>If the mother’s blood sugar is high, the baby’s pancreas makes extra insulin. Extra insulin made by the baby can cause the baby’s own blood sugar to drop too low after birth.</p> <p>This is also called hyperbilirubinemia. Jaundice is a yellowing of the baby’s skin. This can happen 2-7 days after birth. Jaundice is usually easy to treat. However, there are some babies who need to be hospitalized for treatment.</p> <p>If a baby dies late in pregnancy before delivery, it is called stillborn. Stillbirth is not common, but it may happen if the mother’s blood sugar has been high for a long time. Stillbirth may also be caused by high blood pressure.</p>



Objective	Content	Instructor’s Notes
DMCPG-SH-3. (continued)	In addition, women with <u>pre-gestational diabetes</u> have more chance of having a baby with birth defects.	The baby’s organs are formed during the first 8 weeks of pregnancy. If the mother’s blood sugar is high during this time, there is more chance of birth defects.
DMCPG-SH-4. Describe 2 or more tests, procedures or examinations needed during pregnancy.	<p>There are tests, procedures and examinations needed for care of women with pregnancy and diabetes.</p> <p>These include:</p> <ul style="list-style-type: none"> • blood pressure • urine test • weight 	<p>Ask, “Has anyone had any tests/ procedures/examinations during pregnancy? What were they for?” List/ discuss responses.</p> <p>There are other tests that are part of general prenatal care. Emphasize the importance of talking with their health care provider about these other tests.</p> <p>Recommended tests/procedures/ examinations vary based on local facility standards and the individual needs of the woman with pregnancy and diabetes. Provide information on the types and frequency of tests/procedures/ examinations appropriate for the participants and local facility.</p> <p>Measuring blood pressure is the only way to know if it is at target goal.</p> <p>High blood pressure:</p> <ul style="list-style-type: none"> • needs to be treated • may be a sign of a problem for mother and/or baby <p>Urine needs to be checked at every visit for:</p> <ul style="list-style-type: none"> • protein • ketones • infection <p>See <i>BB, Session #2: Healthy Eating During Pregnancy</i> for more information on weight gain during pregnancy.</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-4. (continued)</p>	<ul style="list-style-type: none"> • A1c • blood sugar • fetal monitoring tests, including: <ul style="list-style-type: none"> - non-stress test - ultrasound 	<p>Note: Blood pressure checks, urine tests and weight checks are also part of prenatal care for women who do not have diabetes.</p> <p>Visual #2: <i>Gestational Diabetes—How to Have a Healthy Baby</i>, p. 19 Visual #7: <i>Gestational Diabetes Checklist</i> Visual #8: <i>Pre-gestational Diabetes Checklist</i> Use the handout appropriate for the participant.</p> <p>This test is done in the clinic every 4-6 weeks. Review target A1c goal. See <i>BB</i>, Session #1: <i>Diabetes, Pregnancy and You</i> for information on A1c.</p> <p>Emphasize the importance of bringing their blood sugar logbook to every visit with the health care team. Information on blood sugar checks and food records help the woman and her health care provider learn changes that are needed to reach target blood sugar goals.</p> <p>A non-stress test uses monitors to measure the baby’s heartbeat and the mother’s contractions. A non-stress test is usually done once or twice a week beginning at 28-32 weeks of pregnancy. This test is used to check the health of the baby. A healthy baby has a fast heartbeat which gets faster when he/she moves.</p> <p>Visual #9: <i>Baby Growing</i></p> <p>An ultrasound uses sound waves to make a picture of the baby. An ultrasound may be done early in</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-4. (continued)</p>	<ul style="list-style-type: none"> • kick count <p>The use and timing of tests will vary based on:</p> <ul style="list-style-type: none"> • mother’s blood sugars • growth of the baby • use of insulin • other pregnancy complications • procedures available locally 	<p>pregnancy to estimate the delivery date. Ultrasounds are done later in pregnancy to see if there are any problems with the baby’s growth, weight, and/or development. After 30-32 weeks, an ultrasound may be done weekly to make sure there is a healthy amount of amniotic fluid around the baby.</p> <p><u>Women with pre-gestational diabetes</u> may have another test called a Level II (2) ultrasound. This test is done in the second trimester. It checks the baby’s growth and development and can find problems with the baby’s organs, especially the heart and spinal cord.</p> <p><u>Women with pre-gestational diabetes</u> may also have a fetal echocardiogram to check for problems with the baby’s heart.</p> <p><i>Visual #10: Kick Count</i> Healthy babies are active every day. Counting the babies’ kicks for a period of time every day can tell about the health of the baby. Women may be asked to count their babies’ kicks at least once a day starting at 28-32 weeks of pregnancy. There are different ways to have mothers check their babies’ movements every day. Provide information on kick count procedures appropriate for the participants and local facility.</p> <p>Note: A biophysical profile may also be done. This measures the baby’s:</p> <ul style="list-style-type: none"> • movements • breathing • tone (how well they are able to bend their arms and legs) • amniotic fluid <p>Some facilities only do the amniotic fluid test.</p>



Objective	Content	Instructor’s Notes
<p>DMCPG-SH-4. (continued)</p>	<p>Because pregnancy may worsen some of the long-term problems of diabetes, <u>women with pre-gestational diabetes</u> need additional tests and examinations to check for these problems. These include:</p> <ul style="list-style-type: none"> • kidney tests • dilated eye examination • dental examination • heart tests and examination 	<p>The amniotic fluid test is called an amniocentesis (pronounced am-nee-o-sen-tee-sis.) This test takes a sample of amniotic fluid. It may be done in the 4th or 5th month of pregnancy:</p> <ul style="list-style-type: none"> • in any woman with pre-gestational diabetes • in a woman who will be 35 years or older at the time the baby is born <p>An amniotic fluid test can give information about the baby’s development.</p> <p>Note: Some women also have a contraction stress test. A contraction stress test uses medicine to cause the uterus to contract while measuring the baby’s heartbeat and other things. This test is done to tell if the baby will be healthy during the stress of labor.</p> <p>Provide information appropriate for the participants and local facility.</p> <p>Kidney tests include a 24-hour urine test to check how well the kidneys are working.</p> <p>This is done in the first trimester and then as needed.</p> <p>All women with pre-gestational diabetes need to be checked by a dentist during pregnancy.</p> <p>An EKG is done.</p>



Objective	Content	Instructor’s Notes
DMCPG-SH-4. (continued)		Heart disease is very serious in pregnancy. If heart disease is found, the woman will be referred to a cardiologist.
DMCPG-SH-5. State 2 or more guidelines for when to talk right away with a health care provider during pregnancy.	<p>Women need to talk with their health care provider right away if they have:</p> <ul style="list-style-type: none"> • changes in blood sugar (high or low) • ketones in the urine • leaking fluid or bleeding from the vagina • less baby movement in the second half of pregnancy • uterine contractions • severe headache and/or vision changes • swelling of face, hands or feet • fever • vomiting or diarrhea • burning pain with urination 	<p>Ask, “What are some of the things you would want to tell your health care provider about right away?” List/discuss responses.</p> <p>Emphasize that these may be signs of infection or other serious problems that need treatment right away.</p> <p>Ask participants if they know how to reach their health care providers. Make sure they have the information to do this.</p>
DMCPG-SH-GS. State or write a personal plan to reach and stay at target blood sugar goals during pregnancy.	Making changes in health habits, such as behaviors to reach target blood sugar goals and stay healthy during pregnancy, is easier when plans are broken down into small, easy-to-do steps.	<p>Visual #11: <i>Changes I Can Make</i></p> <p>Assist participants in stating or writing one thing they will do to reach and stay at their personal target blood sugar goals.</p> <p>See <i>BYLD</i>, Session #3: <i>Making Healthy Changes</i>.</p>



SKILLS CHECKLIST

Each participant will be able to make a personal plan to reach and stay at target blood sugar goals.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by the development and implementation of their personal plan to reach and stay at target blood sugar goals. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using current *IHS Patient Education Protocols and Codes (PEPC)*.

