

**Multiple Gestations
EVIDENCE TABLE**

Reference	Study Type	Patients/ Events	Study Objective (Purpose of Study)	Study Results	Strength of Evidence
1. Ghai V, Vidyasagar D. Morbidity and mortality factors in twins. An epidemiologic approach. <i>Clin Perinatol</i> 1988; 15(1):123-140.	15	N/A	Review epidemiologic characteristics of twin pregnancies and twin infants.	Twins are prone to be born prematurely, have lower birth weights, birth asphyxia, hyaline membrane disease, respiratory disorders, and seizures. Twins have higher perinatal mortality.	4
2. Harrison SD, Cyr DR, Patten RM, Mack LA. Twin growth problems: causes and sonographic analysis. <i>Semin Ultrasound CT MR</i> 1993; 14(1):56-67.	12	N/A	Review problems with twin growth in pregnancies.	US determination of chorionicity-amnionity allows better estimation of mortality/morbidity risk. Evaluating twin growth aids early recognition of risks from intrauterine growth restriction (IUGR), and allows the opportunity for timely, appropriate clinical interventions.	4
3. Wenstrom KD, Gall SA. Incidence, morbidity and mortality, and diagnosis of twin gestations. <i>Clin Perinatol</i> 1988; 15(1):1-11.	12	N/A	Review morbidity and mortality of twin gestations.	Twin gestations have higher morbidity and mortality. Early diagnosis, careful monitoring, and knowledge of potential problems might be helpful.	4
4. Manning N, Archer N. A study to determine the incidence of structural congenital heart disease in monochorionic twins. <i>Prenat Diagn</i> 2006; 26(11):1062-1064.	13	165 sets of twins	A cohort study to determine the incidence of structural heart disease in at least one of a monochorionic twin pair excluding any cardiac effects of twin-twin transfusion syndrome (TTTS).	The overall risk of at least one of a monochorionic twin pair having a structural congenital cardiac anomaly was 9.1%; for monochorionic diamniotic twins, this figure was 7.0% but for monochorionic-monoamniotic twins the risk for at least one affected twin was 57.1%. If one of a pair of monochorionic twins was affected, the risk to the other twin for a structural cardiac anomaly was 26.7%. Since the incidence of structural heart disease in monochorionic twins is increased, independent of TTTS referral of these pregnancies for echocardiography is justified.	2
5. Sassoan DA, Castro LC, Davis JL, Hobel CJ. Perinatal outcome in triplet versus twin gestations. <i>Obstet Gynecol</i> 1990; 75(5):817-820.	15	15 triplet and twin pregnancies	Evaluate maternal and neonatal outcome in pregnancies to determine whether triplet pregnancies are associated with a significantly worse perinatal outcome than twin pregnancies.	Preterm labor, preterm delivery, and discordancy were higher in triplets than in twins. Triplets had lower mean birth weight. Mean averaged neonatal hospital stay was higher in triplets. No significant differences between the groups in maternal morbidity.	3
6. Bajoria R, Kingdom J. The case for routine determination of chorionicity and zygosity in multiple pregnancy. <i>Prenat Diagn</i> 1997; 17(13):1207-1225.	12	N/A	To review chorionicity and zygosity in multiple pregnancy.	Postnatal determination of zygosity in like sex twin pairs with dichorionic placenta is important for the future consideration of organ transplantation compatibility and to evaluate the genetic component of various diseases.	4

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7. Dube J, Dodds L, Armson BA. Does chorionicity or zygosity predict adverse perinatal outcomes in twins? <i>Am J Obstet Gynecol</i> 2002; 186(3):579-583.	15	1,008 twin pregnancies	Retrospective cohort study to determine whether chorionicity or zygosity predict unfavorable perinatal outcomes in twins.	<ul style="list-style-type: none"> • Monochorionic/monozygotic twins had lower mean birth weights compared with dichorionic/dizygotic twins. • Rates of perinatal mortality of at least one twin were significantly higher among monochorionic/monozygotic twins relative to dichorionic/dizygotic twins (relative risk, 2.5; 95% CI: 1.1-2.5). • Dichorionic/majority monozygotic twins had similar perinatal outcomes compared with dichorionic/dizygotic twins. 	2
8. Finberg HJ. The "twin peak" sign: reliable evidence of dichorionic twinning. <i>J Ultrasound Med</i> 1992; 11(11):571-577.	13	15 twin and 5 triplet pregnancies	To describe a decision sequence using the twin peak sign for determining type of twinning.	Presence of a chorionic (or "twin") peak confirms dichorionic twinning, excluding monochorionic placentation.	3
9. Menon DK. A retrospective study of the accuracy of sonographic chorionicity determination in twin pregnancies. <i>Twin Res Hum Genet</i> 2005; 8(3):259-261.	10	463	Retrospective study of the accuracy of sonographic chorionicity determination in twin pregnancies.	Sonography as a screening tool for monochorionic twin pregnancies has a sensitivity of 100%, a specificity of 97.9% and a PPV of 88.2%.	2
10. Monteagudo A, Timor-Tritsch IE, Sharma S. Early and simple determination of chorionic and amniotic type in multifetal gestations in the first fourteen weeks by high-frequency transvaginal ultrasonography. <i>Am J Obstet Gynecol</i> 1994; 170(3):824-829.	10	212	To determine the chorionic and amniotic types in multifetal pregnancies with transvaginal US at ≥14 weeks' gestation.	54/212 patients were delivered, and 43 of these 54 had pathologic evaluation of the placenta. Transvaginal scans diagnosed chorion and amnion type correctly in all 43 pregnancies with pathologic proof.	2
11. Winn HN, Gabrielli S, Reece EA, Roberts JA, Salafia C, Hobbins JC. Ultrasonographic criteria for the prenatal diagnosis of placental chorionicity in twin gestations. <i>Am J Obstet Gynecol</i> 1989; 161(6 Pt 1):1540-1542.	10	32	To examine accuracy of US diagnosis of placental chorionicity in twins by membranes.	Accuracy in predicting monochorionic or dichorionic twinning was 82% and 95%, respectively with cutoff point of 2 mm.	3
12. Benson CB, Doublet PM, Acker D, Heffner LJ. Multifetal pregnancy reduction of both fetuses of a monochorionic pair by intrathoracic potassium chloride injection of one fetus. <i>J Ultrasound Med</i> 1998; 17(7):447-449.	15	3 quadruplet and 2 quintuplet gestations	To determine if a monochorionic pair of fetuses in a higher-order multiple gestation can be reduced by injecting only one fetus with potassium chloride.	Reduction of both fetuses of a monochorionic pair in a higher-order multiple gestations can be accomplished by intrathoracic injection of potassium chloride into only one of the pair.	3
13. Benirschke K. The biology of the twinning process: how placentation influences outcome. <i>Semin Perinatol</i> 1995; 19(5):342-350.	12	N/A	To review the placentation process in twins.	No results stated.	4

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14. Lee YM, Cleary-Goldman J, Thaker HM, Simpson LL. Antenatal sonographic prediction of twin chorionicity. <i>Am J Obstet Gynecol</i> 2006; 195(3):863-867.	10	410	To determine the accuracy of antenatal diagnosis of twin chorionicity at a single tertiary care center and assess the consequences of incorrect diagnoses.	Chorionicity was correctly assigned antenatally in 96% of twins. The sensitivity, specificity, and positive and negative predictive values of monochorionicity assessed ≤ 14 weeks were 89.8%, 99.5%, 97.8%, and 97.5%, respectively. Corresponding statistical values for the second trimester were 88.0%, 94.7%, 88.0%, and 94.7%, respectively. Two cases of inaccurate antenatal diagnoses affected patient counseling or were associated with adverse clinical outcomes.	2
15. Cleary-Goldman J, Morgan MA, Robinson JN, D'Alton ME, Schulkin J. Multiple pregnancy: knowledge and practice patterns of obstetricians and gynecologists. <i>Obstet Gynecol</i> 2004; 104(2):232-237.	15 (survey)	430	To assess knowledge and practices of obstetricians regarding multiple gestation.	Most obstetricians manage multiples according to current American College of Obstetricians and Gynecologists (ACOG) educational materials. This survey identified knowledge gaps, specifically in chorionicity, indicating the need to develop educational strategies addressing these insufficiencies.	4
16. Modena AB, Berghella V. Antepartum management of multifetal pregnancies. <i>Clin Perinatol</i> 2005; 32(2):443-454, vii.	12	N/A	To review important issues regarding antepartum management of multifetal gestations.	No results stated.	4
17. Carroll SG, Soothill PW, Abdel-Fattah SA, Porter H, Montague I, Kyle PM. Prediction of chorionicity in twin pregnancies at 10-14 weeks of gestation. <i>BJOG</i> 2002; 109(2):182-186.	10	150	Prospective study to examine the accuracy of sonographic determination of chorionicity in twin pregnancies at 10-14 weeks of gestation.	<ul style="list-style-type: none"> • Prenatal US examination correctly identified chorionicity in 149 (99.3%) cases. • The most reliable indicator for dichorionicity was a combination using the lambda sign or two separate placenta with a sensitivity and specificity of 97.4% and 100%, respectively. • The most useful test in predicting monochorionicity was the T-sign with a sensitivity of 100% and specificity of 98.2%. • Measurement of the inter-twin membrane thickness was a less reliable indicator where the sensitivity for dichorionicity and specificity for monochorionicity was only 92.6%. 	2

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18. Ewigman BG, Crane JP, Frigoletto FD, LeFevre ML, Bain RP, McNellis D. Effect of prenatal ultrasound screening on perinatal outcome. RADIUS Study Group. <i>N Engl J Med</i> 1993; 329(12):821-827.	8	15,151 pregnant women	Use a randomized trial to determine whether US decreased the frequency of adverse perinatal outcomes.	The rate of adverse perinatal outcome was 5.0% among the infants of the women in the US group and 4.9% among the infants of the women in the control group (relative risk: 1.0; 95% CI: 0.9-1.2; P=0.85). Screening US did not improve perinatal outcome as compared with the selective use of US on the basis of clinician judgment.	1
19. Michaels WH, Schreiber FR, Padgett RJ, Ager J, Pieper D. Ultrasound surveillance of the cervix in twin gestations: management of cervical incompetence. <i>Obstet Gynecol</i> 1991; 78(5 Pt 1):739-744.	13	51 twin pregnancies 153 controls	To determine whether US surveillance of the cervix in twins improve the management of cervical incompetence.	7/51 study patients developed cervical incompetence. All twins survived (with aggressive management to delay preterm delivery). 9/153 controls delivered at a mean of 22.7 weeks, losing 17/18 infants. Use of US and clinical criteria to select patients for cerclage placement helped prevent birth of the youngest and smallest twins and significantly decreased perinatal mortality in the study group.	2
20. Devoe LD, Ware DJ. Antenatal assessment of twin gestation. <i>Semin Perinatol</i> 1995; 19(5):413-423.	12	N/A	To review application of standard tests used for evaluation of intrauterine health in single pregnancies: 1. US fetal growth curves; 2. Doppler velocimetry of the umbilical artery; 3. Nonstress tests; 4. Amniotic fluid assessment and 5. Biophysical profile testing.	The best current evidence suggests that there are clear deficiencies in the basis for growth nomograms for twin gestations, and with the exception of femur length, most individual anatomic measurements start to deviate from singleton standards between 21 and 30 weeks' gestation.	4
21. Hartley RS, Hitti J, Emanuel I. Size-discordant twin pairs have higher perinatal mortality rates than nondiscordant pairs. <i>Am J Obstet Gynecol</i> 2002; 187(5):1173-1178.	15 (population-based retrospective analysis)	9,590 twin pairs	To determine whether size-discordant twin pairs have worse perinatal mortality and neonatal morbidity rates than nondiscordant pairs and whether the smaller twins of discordant pairs have worse perinatal outcomes than the larger twins.	<ul style="list-style-type: none"> Discordant twin pairs had higher rates of perinatal mortality, neonatal mortality, and 5-minute Apgar scores of <7. Discordant pairs had lower pair weights at each gestational age and were more likely to include small-for-gestational-age infants. Compared with the larger twins, the smaller twins of discordant pairs had higher rates of perinatal mortality. 	2

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22. Alexander GR, Kogan M, Martin J, Papiernik E. What are the fetal growth patterns of singletons, twins, and triplets in the United States? <i>Clin Obstet Gynecol</i> 1998; 41(1):114-125.	15 (research on patterns)	3,603,971 singleton births 463,856 twin births 18,843 triplet births	To use data drawn from 1991-1995 U.S. Natality Data Files to describe fetal growth variations in singletons, twins and triplets live births.	<ul style="list-style-type: none"> Study shows plurality-specific fetal growth curves are preferable to growth curves based on singleton births for the more accurate identification of deviation from the normal pattern of fetal growth of twins and triplets. Intrauterine growth of twins and triplets differs from that of singletons. 	2
23. Grumbach K, Coleman BG, Arger PH, Mintz MC, Gabbe SV, Mennuti MT. Twin and singleton growth patterns compared using US. <i>Radiology</i> 1986; 158(1):237-241.	13	103 twin pregnancies	To compare the growth patterns of twin biparietal diameter (BPD), fetal femur length (FFL), and abdominal circumference with those of singletons using US in a statistical study.	Results show a decrease in twin BPD growth after 31-32 weeks of gestation relative to singletons. Twin abdominal circumference growth rate decreases after 32-33 weeks of gestation relative to singletons, but the twin FFL growth pattern does not deviate from that of singletons throughout gestation.	2
24. D'Alton ME, Mercer BM. Antepartum management of twin gestation: ultrasound. <i>Clin Obstet Gynecol</i> 1990; 33(1):42-51.	12	N/A	To review the use of US in antepartum management of twin gestation.	Doppler US may be useful in the assessment of the intrauterine growth retardation (IUGR) twin fetus. The use of Doppler in the identification of twin-to-twin transfusion syndrome (TTS) is not yet clear.	4
25. Gonzalez-Quintero VH, Luke B, O'Sullivan M J, et al. Antenatal factors associated with significant birth weight discordancy in twin gestations. <i>Am J Obstet Gynecol</i> 2003; 189(3):813-817.	15	3,910 twin gestations	To evaluate factors associated with significant birth weight discordancy in twin gestations.	<p>Severe birth weight discordancy was associated with:</p> <ul style="list-style-type: none"> Fetal growth deceleration by 20 to 28 weeks (adjusted odds ratio, 4.90; 95% CI: 3.15-7.64) and between 28 weeks to birth (adjusted odds ratio, 3.48; 95% CI: 1.72-7.06). Antenatal bleeding (adjusted odds ratio, 1.86; 95% CI: 1.08-3.21), preeclampsia (adjusted odds ratio, 1.70, 95% CI: 1.21-2.41), and monochorionicity (adjusted odds ratio, 2.35, 95% CI: 11.71-3.23). <p>Data demonstrate the importance of early diagnosis of placental chorionicity.</p>	2
26. Akiyama M, Kuno A, Tanaka Y, et al. Comparison of alterations in fetal regional arterial vascular resistance in appropriate-for-gestational-age singleton, twin and triplet pregnancies. <i>Hum Reprod</i> 1999; 14(10):2635-2643.	13	35 S-AGA, 52 Tw-AGA and 12 Tri-AGA fetuses	Longitudinal study to evaluate alterations in fetal vascular resistance of fetal peripheral arteries with advancing gestation in singleton appropriate-for-gestational-age (S-AGA), twin appropriate-for-gestational-age (Tw-AGA) and triplet appropriate-for-gestational-age (Tri-AGA) infants.	No significant difference for regional arterial vascular resistance in AGA fetuses among singleton, twin, and triplet pregnancies, whereas, there was a slight difference in fetal growth pattern among singleton, twin, and triplet pregnancies.	2

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27. Newman RB, Ellings JM. Antepartum management of the multiple gestation: the case for specialized care. <i>Semin Perinatol</i> 1995; 19(5):387-403.	12	N/A	To review antepartum management of multiple gestations.	Specialized care can improve both perinatal morbidity and mortality in multiple gestations. Specialized care include consistent evaluation of maternal symptoms and cervical status by a single care-provider, intensive preterm birth prevention education, individualized modification of maternal activity, increased attention to nutrition, ultrasonography, tracking of clinic nonattenders, and a supportive clinical environment.	4
28. Blickstein I, Friedman A, Caspi B, Lancet M. Ultrasonic prediction of growth discordancy by intertwin difference in abdominal circumference. <i>Int J Gynaecol Obstet</i> 1989; 29(2):121-124.	10	24 discordant, 32 concordant twin pairs.	To confirm the predictive value of abdominal circumference in twin growth discordancy.	18 mm difference in abdominal circumference discriminated between concordant and discordant pairs at P<0.0009. Sensitivity 66.7%, specificity 78%, PPV 69.5%, NPV 75.7%.	2
29. Brink Henriksen T, Villadsen GE, Hedegaard M, Secher NJ. Prediction of light-for-gestational age at delivery in twin pregnancies: an evaluation of fetal weight deviation and growth discordance measured by ultrasound. <i>Eur J Obstet Gynecol Reprod Biol</i> 1992; 47(3):195-200.	9	66 twin pregnancies	Retrospective study to examine different US methods used as predictors for light-for-gestational age (LGA) in twin pregnancies using ROC curves. Methods used were: 1. difference between twins in BPD; 2. difference in abdominal diameter; 3. the percentage difference in estimated fetal weight between twins; 4. estimation of the weight deviation from the expected weight during pregnancy.	Deviation of estimated fetal weight from anticipated weight is most sensitive and specific. Discordancy is not the appropriate predictor of LGA.	2
30. Rodis JF, Vintzileos AM, Campbell WA, Nochimson DJ. Intrauterine fetal growth in discordant twin gestations. <i>J Ultrasound Med</i> 1990; 9(8):443-448.	13	25 discordant twin pairs, 60 concordant twin pairs	Use US to assess longitudinal growth of twins, ultimately discordant at birth and see how they differ from concordant twins.	<ul style="list-style-type: none"> • Discordance is demonstrable as early as 23-24 weeks. • Smaller twin has much slower growth. • Estimated fetal weights are more efficacious than any individual measurement parameters or any ratio of two parameters. 	2
31. Reece EA, Yarkoni S, Abdalla M, et al. A prospective longitudinal study of growth in twin gestations compared with growth in singleton pregnancies. II. The fetal limbs. <i>J Ultrasound Med</i> 1991; 10(8):445-450.	13	35	Prospective, longitudinal study to assess fetal limb growth in twins as compared with growth in singleton pregnancies. US used to examine patients.	Incremental growth, which was less in twins than in singletons, was so small that it was judged unnecessary to warrant the generation of separate nomograms for the evaluation of growth in twin gestations.	2

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32. Reece EA, Yarkoni S, Abdalla M, et al. A prospective longitudinal study of growth in twin gestations compared with growth in singleton pregnancies. I. The fetal head. <i>J Ultrasound Med</i> 1991; 10(8):439-443.	13	35	Prospective, longitudinal study to assess fetal head growth in twins as compared to tables for singletons.	In uncomplicated twin gestations, growth of the fetal head was not significantly different to that of singleton pregnancies. Nomograms derived from measurements obtained in singleton pregnancies remain useful for evaluating fetal head growth in twin gestations.	2
33. Klam SL, Rinfret D, Leduc L. Prediction of growth discordance in twins with the use of abdominal circumference ratios. <i>Am J Obstet Gynecol</i> 2005; 192(1):247-251.	10	503 twin pregnancies	A prospective cohort study to assess the accuracy of sonographic prediction of twin birth weight discordance using the abdominal circumference ratio.	12.7% of pregnancies had discordant fetal growth. The abdominal circumference ratio could be measured consistently throughout gestation in all of twin pairs. ROC curve analysis showed that the abdominal circumference ratio was a good predictor of birth weight discordance.	1
34. Blickstein I. The definition, diagnosis, and management of growth-discordant twins: an international census survey. <i>Acta Genet Med Gemellol (Roma)</i> 1991; 40(3-4):345-351.	15	61 responders	Study based on opinions of authors of twin related articles to determine consensus on definition, diagnosis and management of growth discordant twins.	Indirect support for a 2-grade definition of discordancy by weight disparity: >15%, <25%=mild >25%=severe. Expectant management chosen by most participants. Follow-up recommended by non-stress testing (daily; 2-weeks), biophysical profile (1-2/weeks), Doppler velocimetry (1 week–bi-weekly) and sonographic biometry (bi-weekly).	4
35. Ayres A, Johnson TR. Management of multiple pregnancy: prenatal care-part I. <i>Obstet Gynecol Surv</i> 2005; 60(8):527-537.	12	N/A	To review management of the multifetal pregnancy with focus on the maternal physiology, the diagnosis, the pregnancy outcomes, and the antenatal management of multiple gestation.	Multifetal gestation is associated with an increased risk of perinatal morbidity and mortality. Multiple births account for an increasing percentage of low-birth-weight infants, preterm births, and infant mortality.	4
36. Gaziano EP, Knox GE, Bendel RP, Calvin S, Brandt D. Is pulsed Doppler velocimetry useful in the management of multiple-gestation pregnancies? <i>Am J Obstet Gynecol</i> 1991; 164(6 Pt 1):1426-1431; discussion 1431-1423.	13	94 twin pairs 7 triplet sets	To assess significance of abnormal pulsed Doppler measurement in multiple gestations.	Abnormal pulsed Doppler velocimetry showed high correlation with adverse pregnancy events. 15/17 infants with abnormal antenatal waveforms had serious morbidity.	2
37. Hastie SJ, Danskin F, Neilson JP, Whittle MJ. Prediction of the small for gestational age twin fetus by Doppler umbilical artery waveform analysis. <i>Obstet Gynecol</i> 1989; 74(5):730-733.	10	89 twin pregnancies 453 Doppler studies	To determine the predictive value of Doppler studies to identify twin fetuses destined to be small for gestational age (SGA) at birth.	32/178 fetuses were SGA; 24/82 SGA Doppler studies were abnormal. Sensitivity 29%, specificity 88%, PPV 34%, NPV 85%. Doppler study is not of much value in the prediction of SGA infants in twin pregnancies.	2

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38. Degani S, Gonen R, Shapiro I, Paltiely Y, Sharf M. Doppler flow velocity waveforms in fetal surveillance of twins: a prospective longitudinal study. <i>J Ultrasound Med</i> 1992; 11(10):537-541.	10	37 twin pairs 197 Doppler studies	Prospective, longitudinal study on Doppler flow velocity waveforms in fetal surveillance of twins.	23 /74 infants were SGA (<10%). 35 Doppler studies were abnormal with sensitivity of 58%, specificity 71% for predicting SGA fetus. Doppler with US diagnosis of SGA by interval of 3.7 weeks showed better sensitivity and specificity.	2
39. Ezra Y, Jones J, Farine D. Umbilical artery waveforms in triplet and quadruplet pregnancies. <i>Gynecol Obstet Invest</i> 1999; 47(4):239-243.	13	73 fetuses	Retrospective review of umbilical waveforms in triplet and quadruplet pregnancies.	<ul style="list-style-type: none"> All abnormal waveforms were characterized by persistent absence of the end-diastolic velocities (AEDV). In comparing the abnormal and normal groups, significant differences were found in birth weights (910+/-433 vs 1,724+/-434 g; P=0.0004), SGA rate [5/6 (83%) vs 5/67 (7.5%); P=0.0003], and perinatal mortality rate [3/6 (50%) vs. 2/67(3%); P=0.001]. Doppler umbilical artery waveforms in multiple pregnancies were either normal or extremely abnormal (eg, AEDV). AEDV was associated with adverse perinatal outcomes such as low birth weight, growth restriction and perinatal mortality. 	3
40. Gerson AG, Wallace DM, Bridgens NK, Ashmead GG, Weiner S, Bolognese RJ. Duplex Doppler ultrasound in the evaluation of growth in twin pregnancies. <i>Obstet Gynecol</i> 1987; 70(3 Pt 1):419-423.	10	52 sets of twins and 4 sets of triplets	To evaluate multiple pregnancies for evidence of discordant growth using traditional ultrasonic methods and duplex Doppler US.	Duplex Doppler US predicted normal growth in 44/45 normal sets of fetuses, and correctly predicted discordant growth in 9/11 discordant sets of twins. Among those nine abnormal sets, Doppler US predicted that six would become discordant before this was recognized by traditional ultrasonic measurements. Duplex Doppler US is useful in predicting and confirming concordant and discordant growth, and defining the cause of fetal discordancy.	3
41. Sperling L, Kiil C, Larsen LU, et al. How to identify twins at low risk of spontaneous preterm delivery. <i>Ultrasound Obstet Gynecol</i> 2005; 26(2):138-144.	10	383	A blinded prospective multicenter study to evaluate transvaginal sonographic assessment of cervical length as a screening test for spontaneous preterm delivery to define a cut off value to select twin pregnancies at low risk of spontaneous preterm delivery.	Cervical length measurement at 23 weeks of gestation is a good screening test for predicting twins at low risk of preterm and very preterm delivery, especially in DC twins. The present results suggest that a cut-off of 25 mm should be recommended.	1

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42. Vayssiere C, Favre R, Audibert F, et al. Cervical assessment at 22 and 27 weeks for the prediction of spontaneous birth before 34 weeks in twin pregnancies: is transvaginal sonography more accurate than digital examination? <i>Ultrasound Obstet Gynecol</i> 2005; 26(7):707-712.	9	328	A prospective multicenter study that compared the accuracy of US cervical assessment (cervical length and cervical index) and digital examination (Bishop score and cervical score) in the prediction of spontaneous birth before 34 weeks in twin pregnancies.	Transvaginal sonography predicted spontaneous delivery before 34 weeks better than digital examination at the 27-week but not at the 22-week examination.	1
43. Goldenberg RL, Iams JD, Miodovnik M, et al. The preterm prediction study: risk factors in twin gestations. National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network. <i>Am J Obstet Gynecol</i> 1996; 175(4 Pt 1):1047-1053.	13	147 women with twins	Prospective study to determine the association between the presence of bacterial vaginosis, fetal fibronectin, and a short cervix and the risk of spontaneous preterm birth of twins.	Most known risk factors for spontaneous preterm birth were not significantly associated with spontaneous preterm birth of twins. At 24 weeks, cervical length ≤ 25 mm was the best predictor of spontaneous preterm birth at < 32 weeks, < 35 weeks, and < 37 weeks. Of the risk factors evaluated at 28 weeks, fetal fibronectin was the only statistically significant predictor of spontaneous preterm birth at < 32 weeks.	2
44. Egan JF, Borgida AF. Multiple gestations: the importance of ultrasound. <i>Obstet Gynecol Clin North Am</i> 2004; 31(1):141-158.	12	N/A	Review uses of US in the diagnosis and management of unique problems in twins.	High-resolution US has improved the management of multiple gestations.	4
45. Feldstein VA. Understanding twin-twin transfusion syndrome: role of Doppler ultrasound. <i>Ultrasound Q</i> 2002; 18(4):247-254.	12	N/A	To understand US vascular features including vascular connections in TTTS.	Indirect support for evaluation of Doppler parameters in TTTS including assessment of placental vascular connections between cord insertion sites.	4
46. ACOG Practice Bulletin #56: Multiple gestation: complicated twin, triplet, and high-order multifetal pregnancy. <i>Obstet Gynecol</i> 2004; 104(4):869-883.	15	N/A	Guideline to address risks associated with multiple gestations. An evidence-based approach to management is also presented.	N/A	4

Evidence Table Key

Study Type Key

Numbers 1-7 are for studies of therapies while numbers 8-15 are used to describe studies of diagnostics.

1. Randomized Controlled Trial — Treatment
2. Controlled Trial
3. Observation Study
 - a. Cohort
 - b. Cross-sectional
 - c. Case-control
4. Clinical Series
5. Case reviews
6. Anecdotes
7. Reviews

8. Randomized Controlled Trial — Diagnostic
9. Comparative Assessment
10. Clinical Assessment
11. Quantitative Review
12. Qualitative Review
13. Descriptive Study
14. Case Report
15. Other (Described in text)

Strength of Evidence Key

- Category 1 - The conclusions of the study are valid and strongly supported by study design, analysis and results.
- Category 2 - The conclusions of the study are likely valid, but study design does not permit certainty.
- Category 3 - The conclusions of the study may be valid but the evidence supporting the conclusions is inconclusive or equivocal.
- Category 4 - The conclusions of the study may not be valid because the evidence may not be reliable given the study design or analysis.