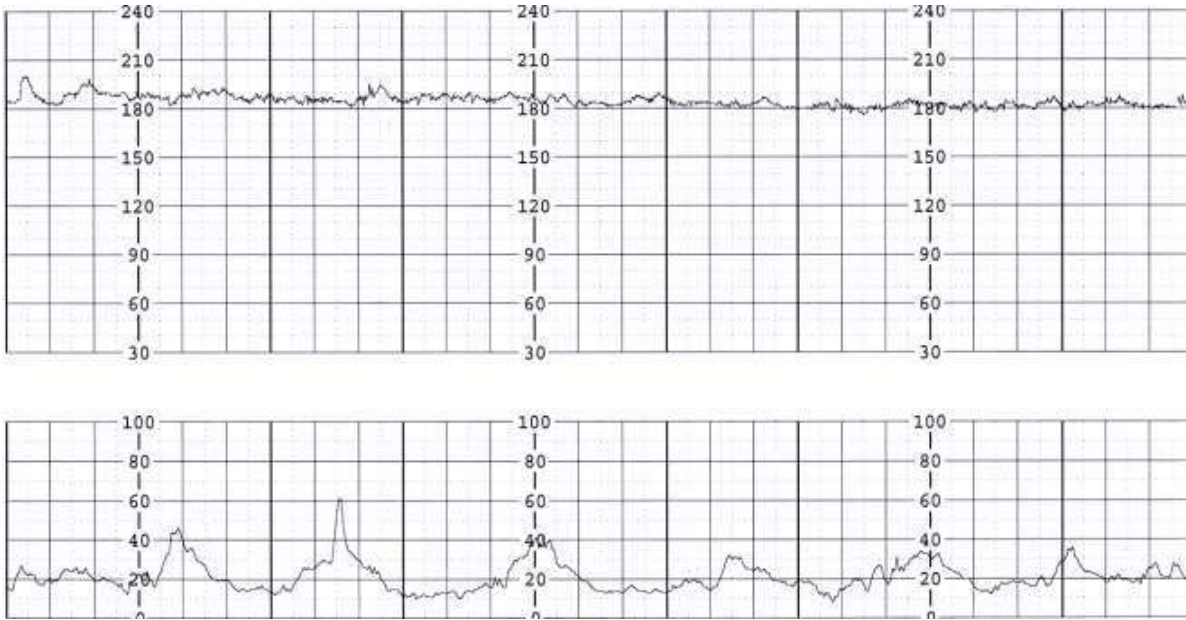


The above external tracing is a 39-week gestation gravida 1 with preeclampsia admitted in spontaneous labor. At the time of this fetal heart tracing, she is 2 cm, 90%, 0. The next 3 questions (1, 2, and 3) relate to this tracing.

1. The intensity of these contractions would be documented as
  - a. moderate quality
  - b. must assess by palpation
  - c. 35-40 mmHg
2. The etiology of this pattern is most likely
  - a. cord compression
  - b. head compression
  - c. uteroplacental insufficiency
3. After repositioning the patient, an appropriate intervention would be to administer
  - a. oxygen
  - b. pitocin
  - c. terbutaline
4. In the preterm fetus, a FHR baseline greater than 160 bpm is
  - a. considered normal due to early gestational age
  - b. Indicative of fetal tachycardia
  - c. accompanied by accelerations that are lower in amplitude and less frequent than of the term fetus
5. Which fetal heart rate pattern is are more common in preterm fetuses during the antepartum period?
  - a. early
  - b. late
  - c. variable

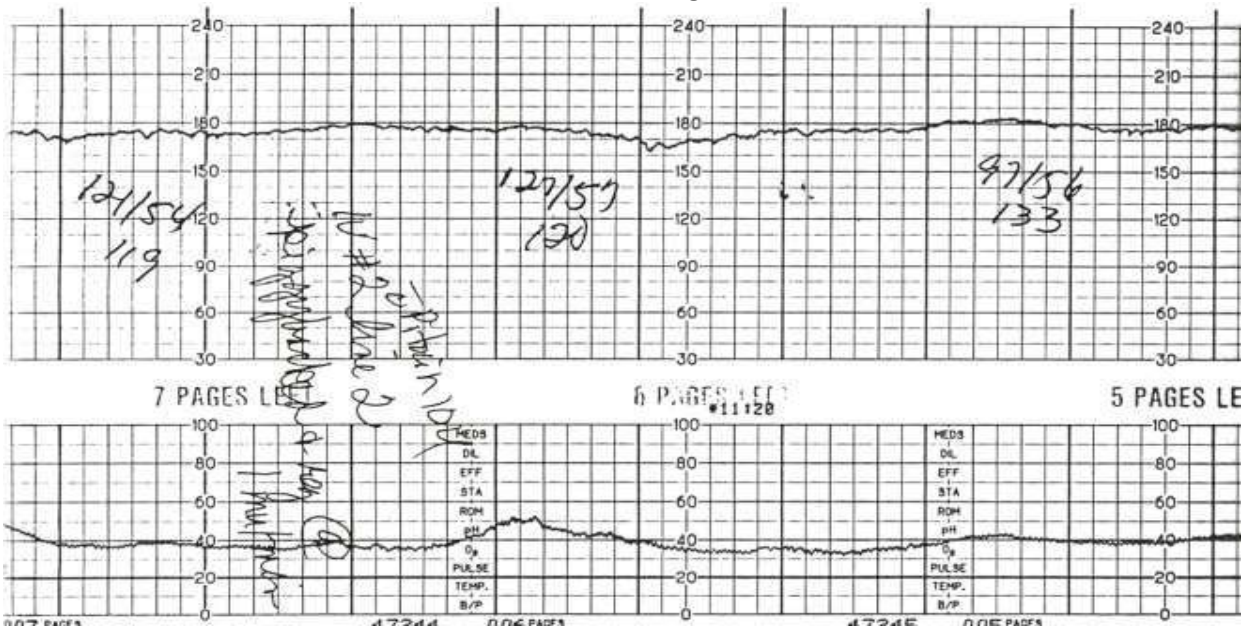
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The tracing above is of a GBS positive gravida 1, para 0 admitted at 38 weeks stating she thinks she has been leaking fluid for 2 days. She is 1- 2 cm dilated and 90% effaced. External monitoring. The next 3 questions (6, 7, and 8) relate to this strip.

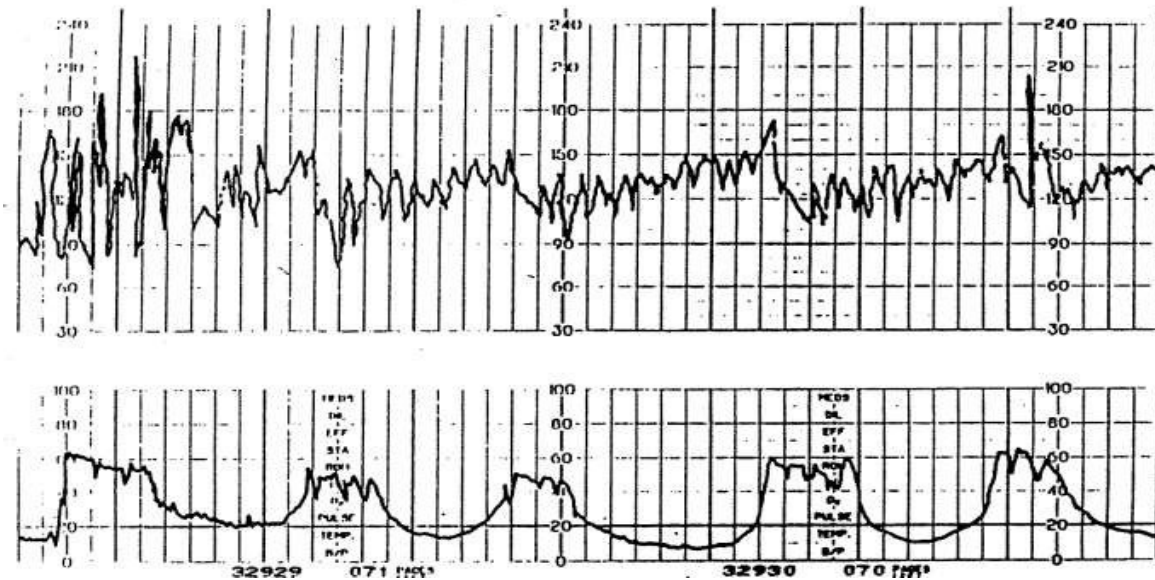
6. This fetal heart tracing is most likely the result of
  - a. a parasympathetic response from pain
  - b. chorioamnionitis
  - c. fetal acidemia
  
7. Using NICHD definitions, the baseline FHR is best described as
  - a. 175
  - b. 180
  - c. 180-190
  
8. The most appropriate initial action for this tracing would be to
  - a. administer terbutaline
  - b. assess the maternal temperature
  - c. prepare for an amnioinfusion

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Contractions are being monitored with an IUPC. Pitocin is infusing at 1 mu/min. Patient is a gravida 1, para 0 who thirty minutes prior to this fetal heart tracing was 4 cm, 100%, and +1. The next 2 questions (9 and 10) relate to this strip.

9. The resting tone is
  - a. above normal
  - b. below normal
  - c. normal
10. The most appropriate nursing action would be to
  - a. discontinue pitocin
  - b. increase the pitocin
  - c. keep pitocin at the present level

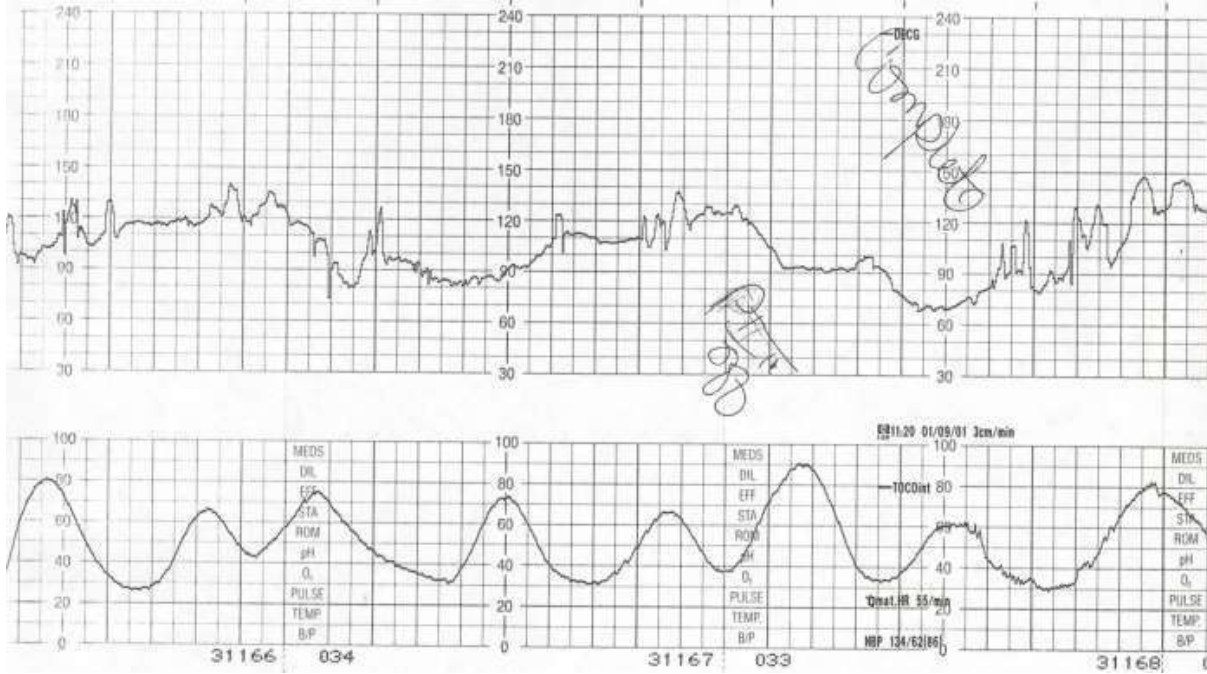


The external fetal heart tracing above is of a term gravida 1, para 0 at a +1 to +2 station. The next 2 questions (11 and 12) relate to this tracing

11. After repositioning, increasing the IV, and administering oxygen, the most appropriate action would be to
  - a. assess maternal blood pressure
  - b. initiate pitocin
  - c. push every other contraction

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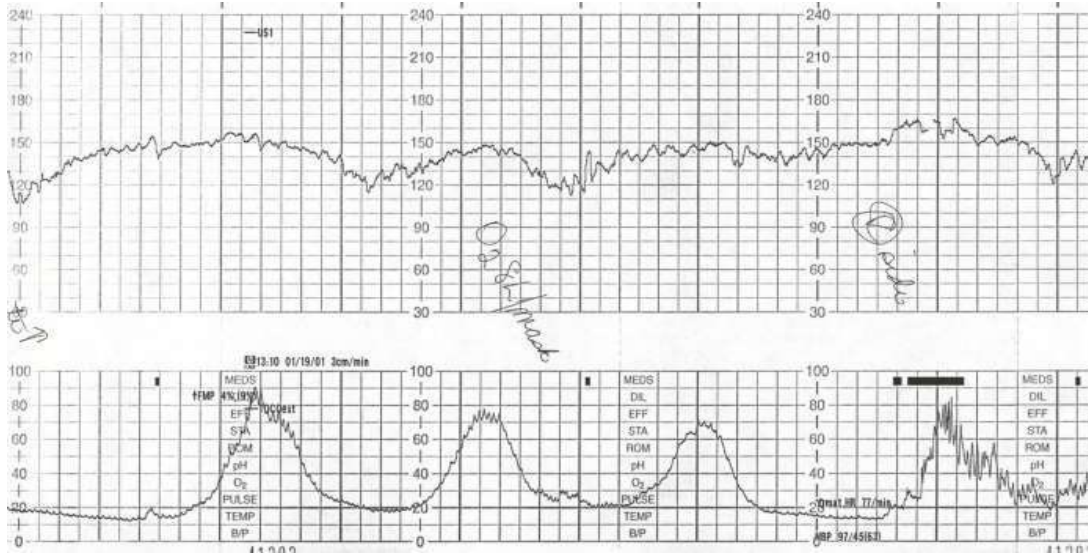
12. The baseline in the tracing above is
- 130
  - 140
  - Indeterminate



The next 2 questions (13 and 14) relate to this tracing

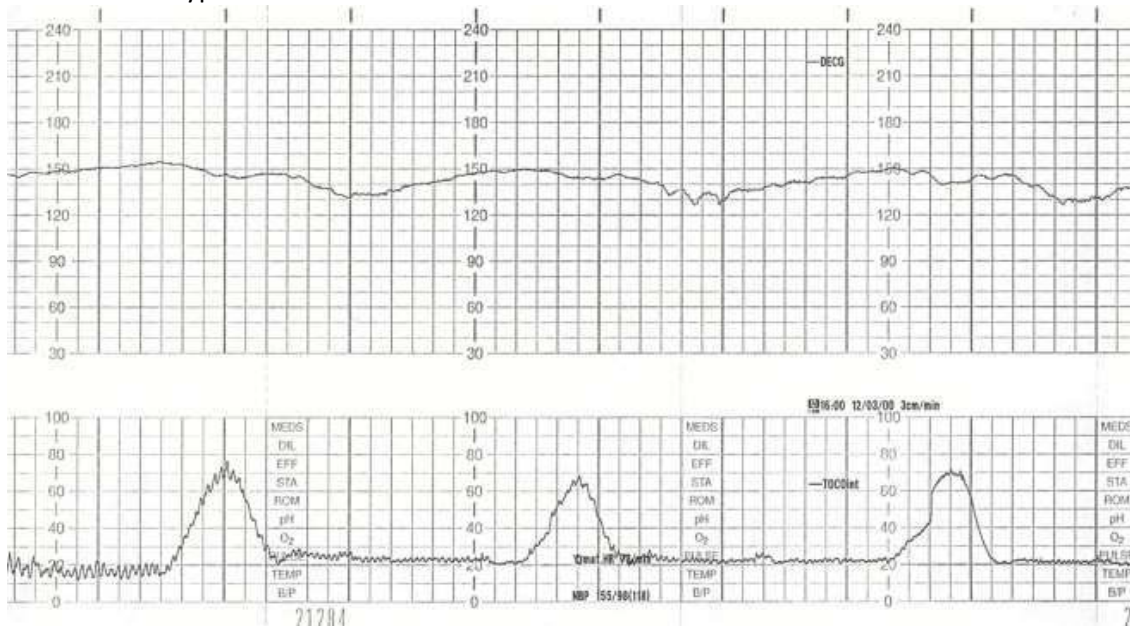
13. In the internal tracing above, after discontinuing the pitocin, the intrauterine resuscitative measure most likely to correct this FHR tracing is
- IV fluids
  - oxygen by face mask
  - terbutaline
14. The resting tone (an IUPC is in place) in the tracing above is most often
- 30 mmHg
  - 45 mmHg
  - soft
15. Umbilical artery Doppler velocimetry is performed to assess:
- Fetal growth
  - Fetal oxygenation
  - Placental function
16. An initial response to a transient hypoxemia is:
- A decrease heart rate baseline in the lower normal range
  - An increase in fetal heart rate baseline
  - Late decelerations
17. In metabolic acidosis, the oxygen supply to the fetus is diminished causing an increase in:
- Bicarbonate
  - Carbon dioxide
  - Lactic acid

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The above tracing is that of a 39 ½ week gestation gravida 3, para 2 who is currently 6 cm, 90%, -1. Her blood pressure is 97/45. The next two questions (18 and 19) relate to this tracing.

18. This FHR pattern depicts
  - a. prolonged deceleration
  - b. late decelerations
  - c. variable decelerations
  
19. What is the most likely underlying cause of this fetal heart pattern?
  - a. a short umbilical cord
  - b. fetal metabolic acidosis
  - c. maternal hypotension

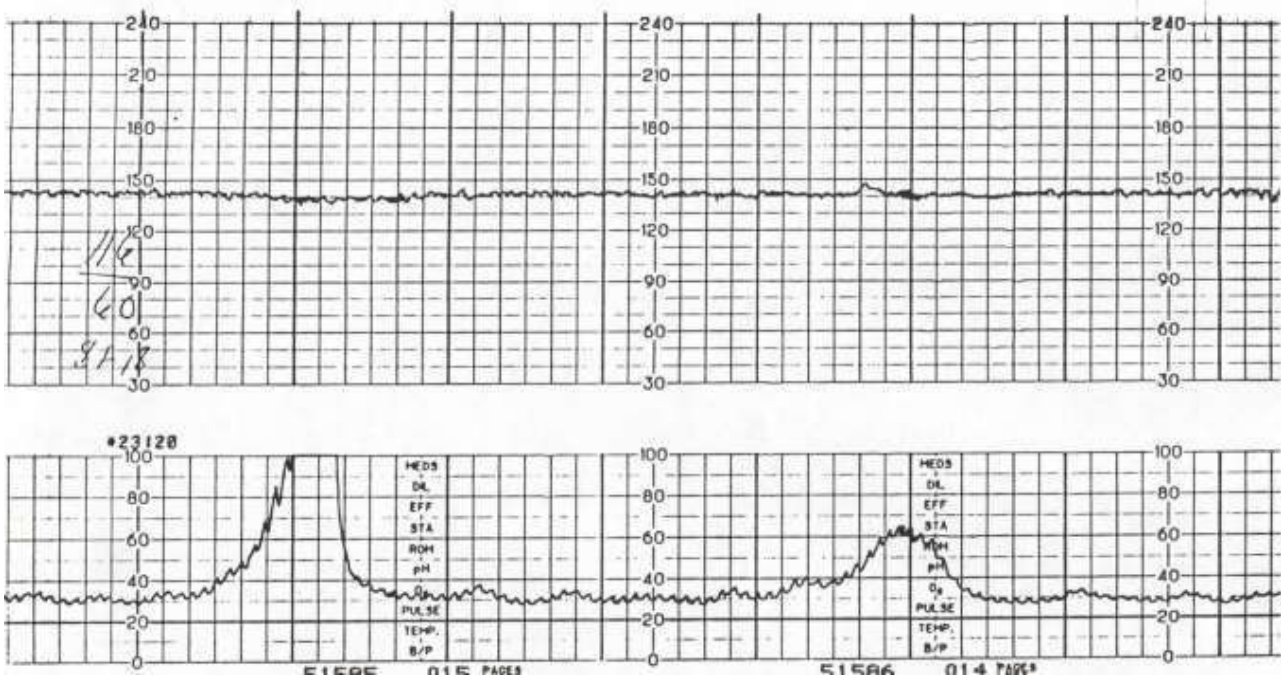


The fetal heart tracing above is of a 26-year-old gravida 1, para 0, 41 weeks gestation; internal monitoring; 9 cm, 100%, +1; the next 2 questions (20 and 21) relate to this strip

20. The duration of these contractions is
  - a. 35-45 seconds
  - b. 50-60 seconds
  - c. 65-75 seconds

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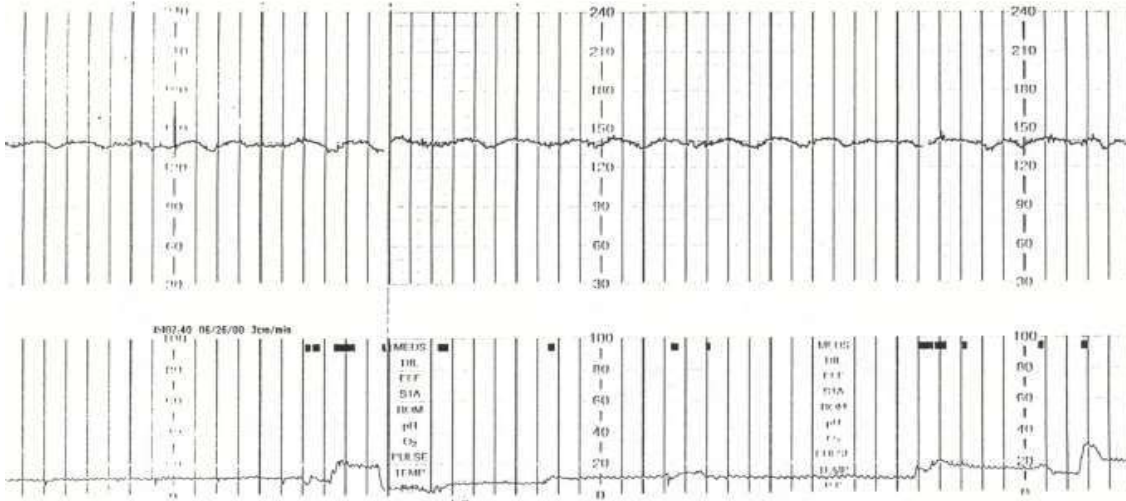
21. Assuming the baseline FHR is 150, using NICHD definitions, the decelerations are best described as
- late
  - prolonged
  - variable



This external fetal heart tracing is of a gravida 1, para 0 at 40 weeks gestation. She is 2-3 cm, 100%, and a 0 station. The tracing was normal (Category I) just ten minutes prior to this tracing. The next 2 questions (22 and 23) relate to this tracing.

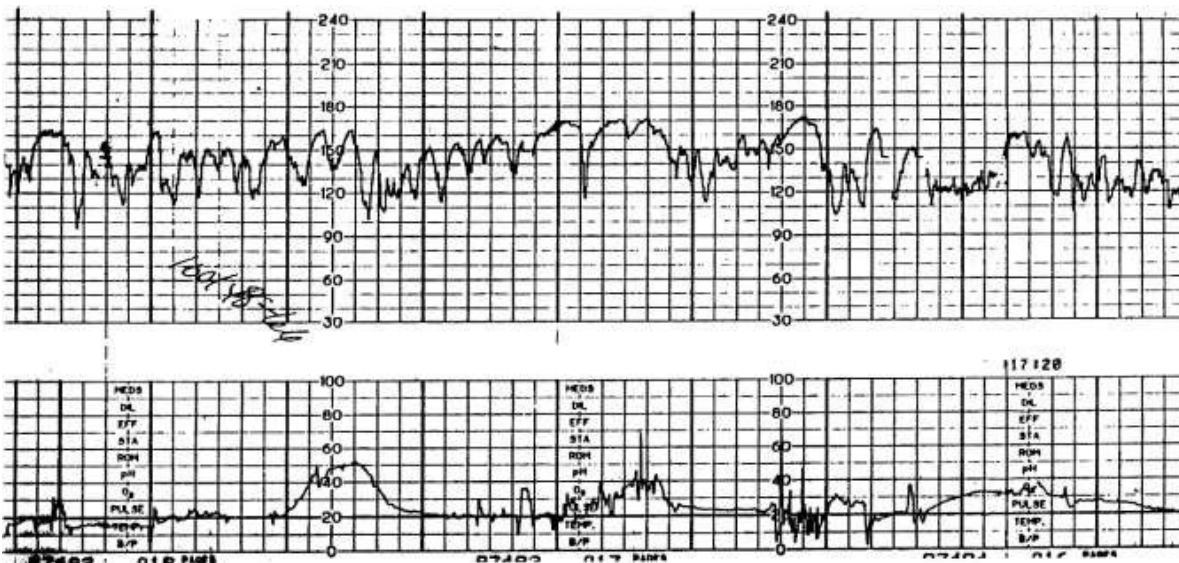
22. The variability in this tracing is
- absent
  - minimal
  - moderate
23. At this time, the most appropriate action for this tracing is to
- continue to observe
  - perform scalp stimulation
  - prepare for a cesarean
24. In the healthy fetus, the umbilical cord enters the pulmonary artery and bypasses the lung through the:
- Ductus arteriosus
  - Ductus venosus
  - Foramen ovale

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The above fetal heart tracing is that of a gravida 3, para 0 at 34 weeks gestation who is admitted with complaints of decreased fetal movement. The patient is not in labor. The tracing looked like this on admission and continues to look the same over the past 1 ½ hours. The next 2 questions (25 and 26) relate to this tracing.

25. This pattern is best described as
  - a. a fetal sleep cycle
  - b. normal for 34 weeks
  - c. sinusoidal
  
26. The most appropriate action in response to this tracing is to
  - a. continue to observe
  - b. have the mother drink some orange juice
  - c. notify the provider



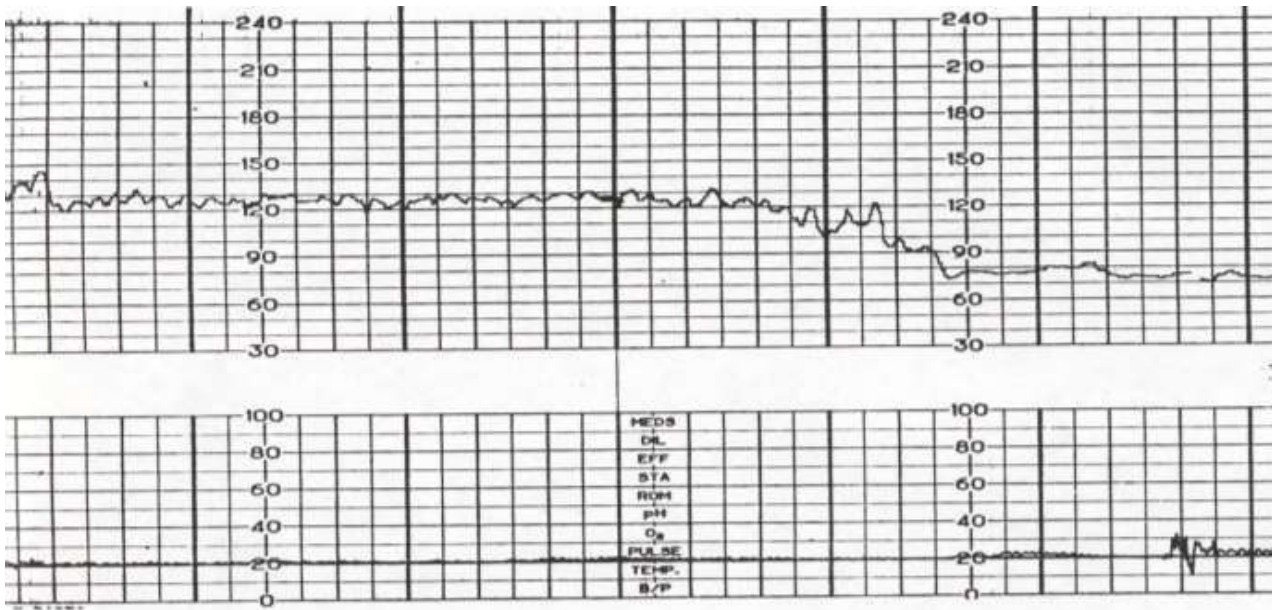
The tracing above is if of a term gravida 2, para 1 who is 6 cm, 100%, and a -1 station. Prior to this fetal heart tracing, the fetal heart rate baseline was 120 with moderate variability. She received ephedrine IV push 5 minutes prior to this tracing for hypotension from an epidural. The next 3 questions (27, 28, and 29) relate to this tracing.

27. The baseline FHR is
  - a. 120
  - b. 120-150
  - c. unable to determine



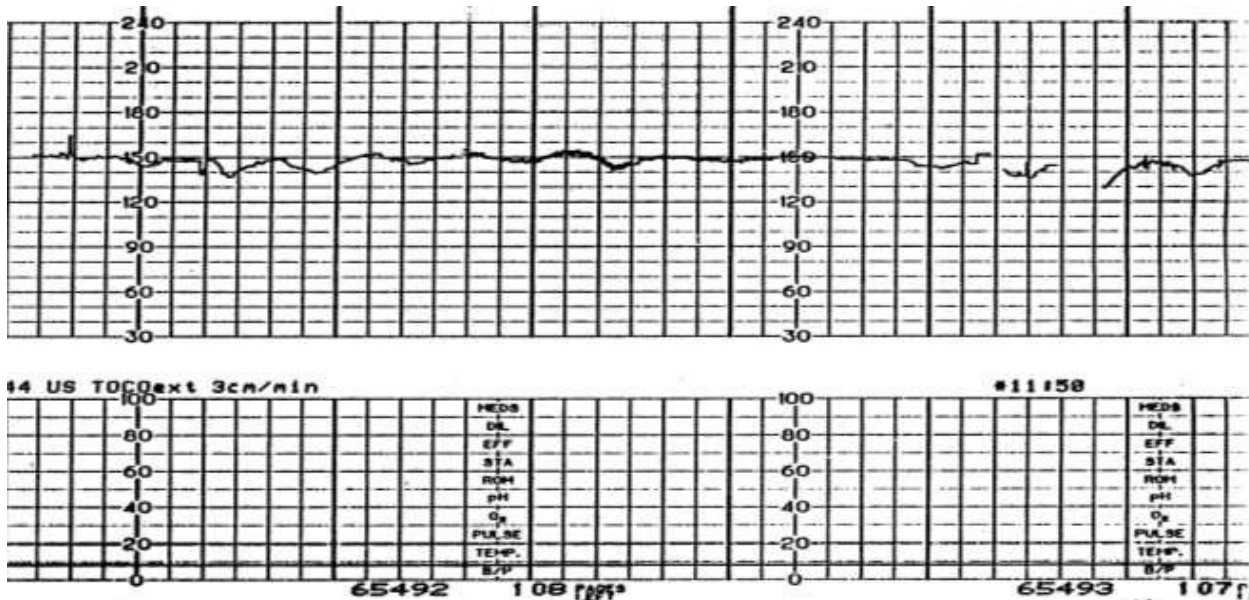


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The next 2 questions (33 and 34) relate to the above tracing

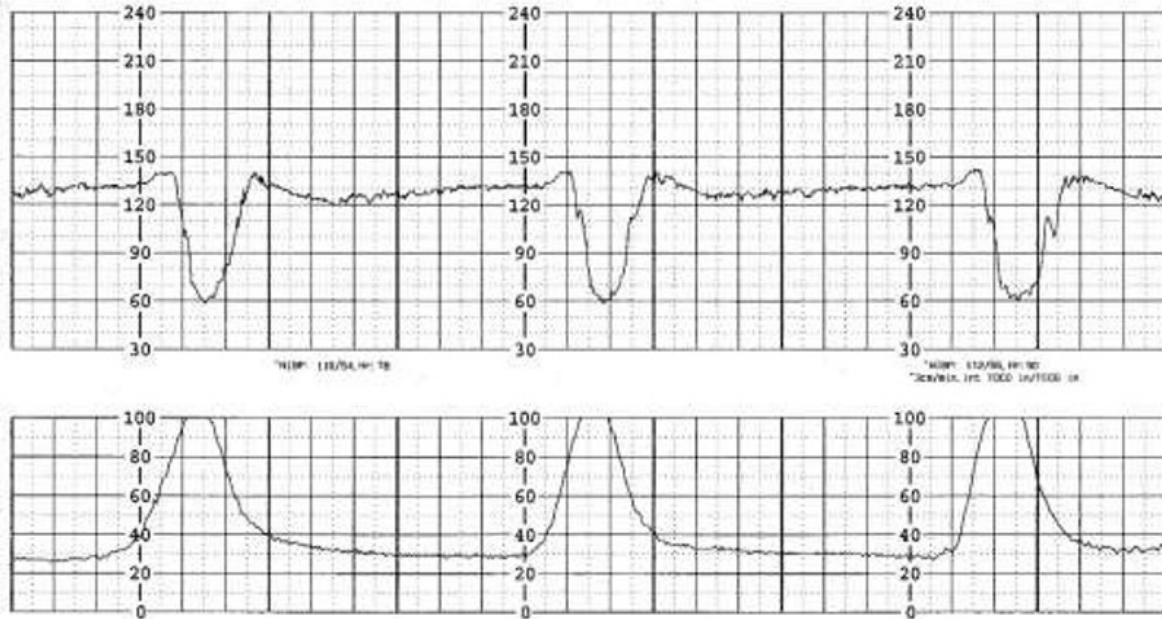
33. This fetal heart rate pattern depicts a
  - a. bradycardia
  - b. prolonged deceleration
  - c. unable to determine
  
34. After repositioning the patient, the next step would be to
  - a. administer oxygen
  - b. initiate scalp stimulation
  - c. perform a vaginal exam



35. The above tracing is an antepartum monitoring of a 26-week gestation fetus. This tracing is best described as
  - a. nonreassuring
  - b. normal for gestational age
  - c. reactive for a 26-week fetus

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36. Compared to the term fetus, the baseline fetal heart rate of the preterm fetus is \_\_\_\_\_ range
- higher
  - lower
  - the same
37. Which type of deceleration is more common in the preterm fetus?
- Early
  - Late
  - Variable
38. A 29-week gestation fetus has a baseline fetal heart rate of 170 bpm. This is interpreted as
- abnormal for gestational age
  - a parasympathetic response to gestational age
  - normal for gestational age

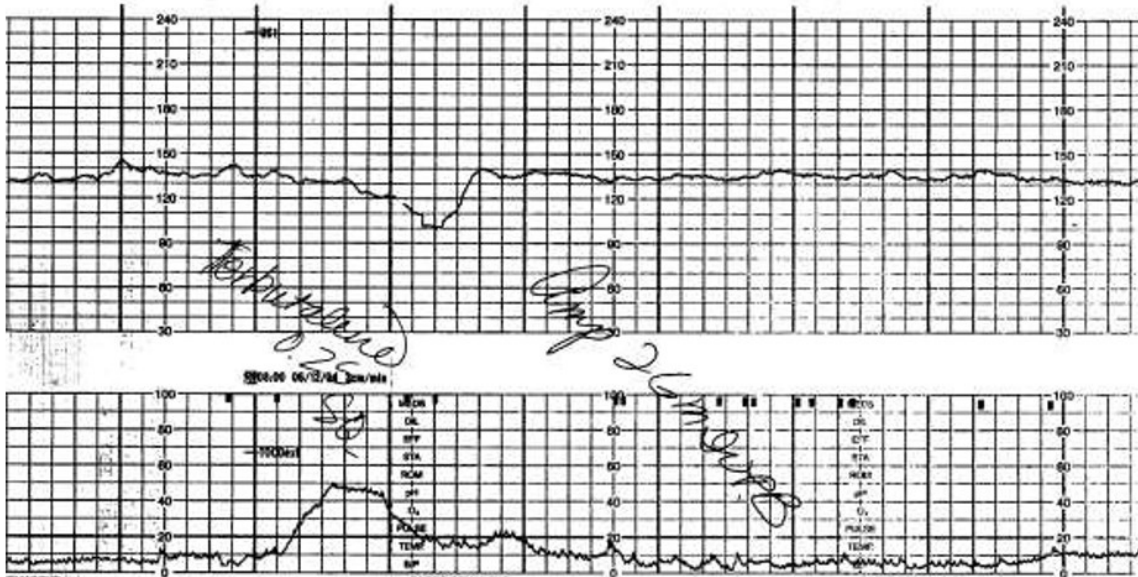


The fetal heart tracing above is a gravida 2, para 1 at 39-weeks' gestation with internal monitoring. Her last vaginal exam 30 minutes ago showed that she was 6 cm, 100%, and -1 station. The next 5 questions (39, 40, 41, 42, and 43) relate to this tracing.

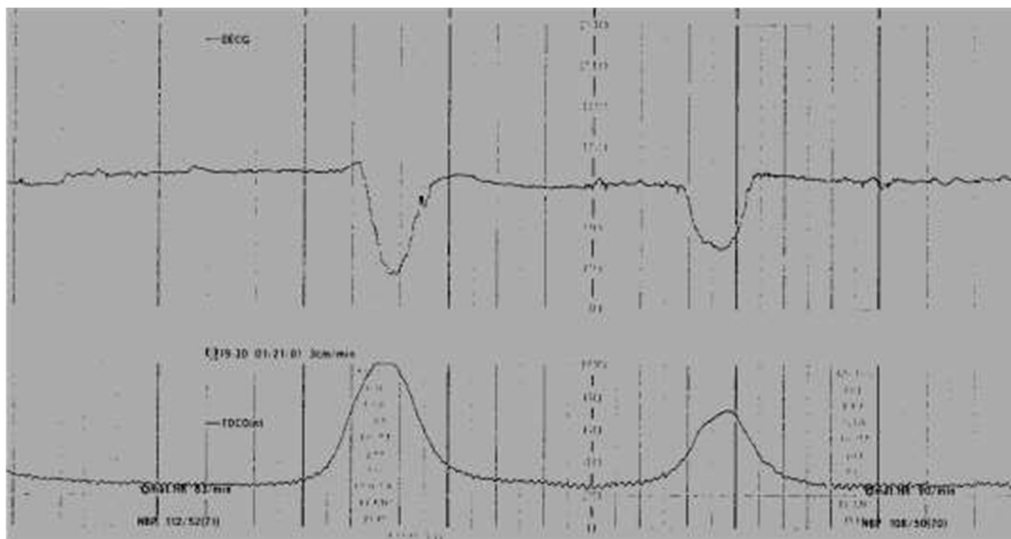
39. The peak pressure of the contractions is
- 30 mm Hg
  - 70 mm Hg
  - 100 mmHg
40. Given the patient's phase of labor, the peak pressure of these contraction is
- normal
  - too high
  - too low
41. According to the NICHD definitions, these decelerations are defined as
- episodic
  - periodic
  - regular

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42. The very first intervention for tracing strip would be to
- administer oxygen
  - give an IV fluid bolus
  - reposition the patient
43. Assuming that there were only these three contractions in a 10-minute strip, the Montevideo units for the above tracing are
- 90
  - 210
  - 300

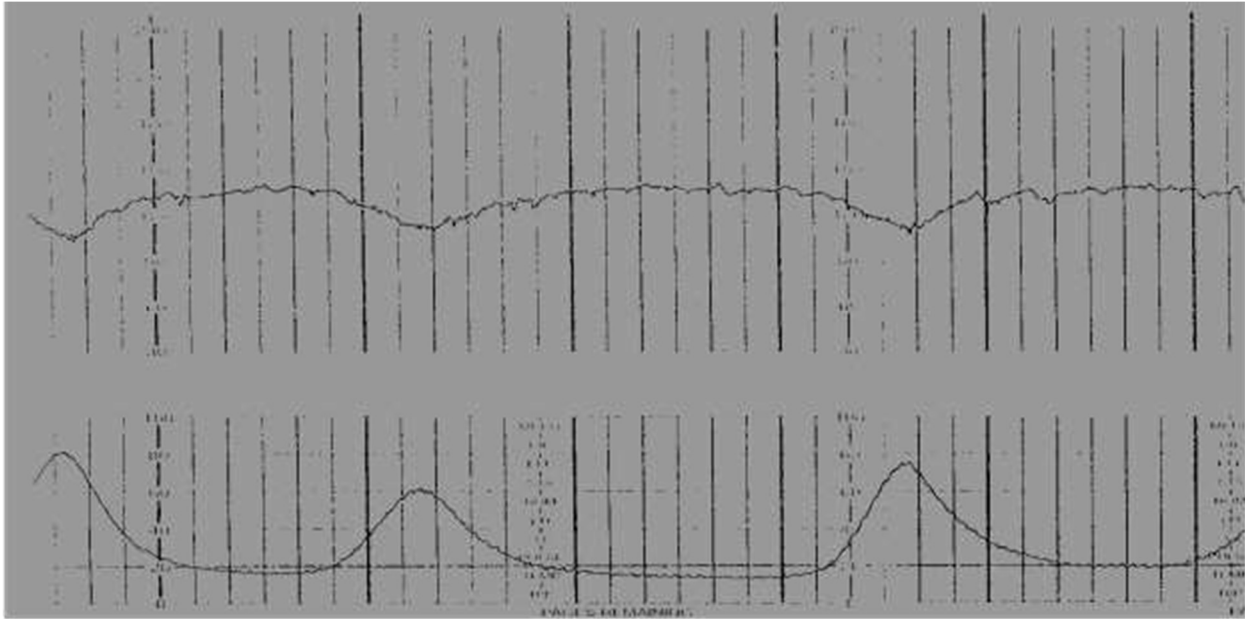


44. The NICHD would define the above decelerations as
- early
  - late
  - variable

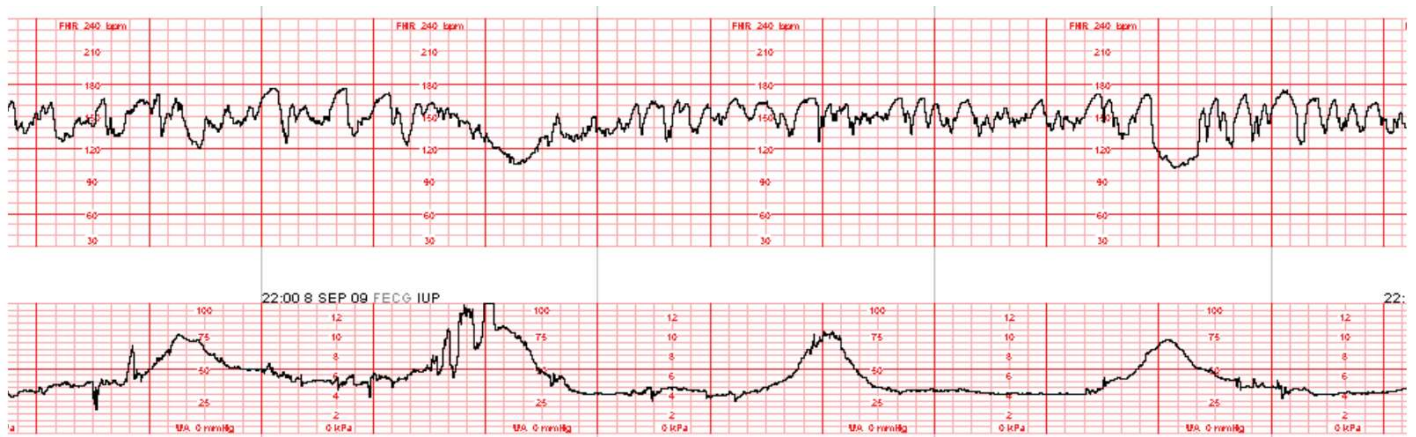


45. The NICHD would define the above decelerations as
- early
  - late
  - variable

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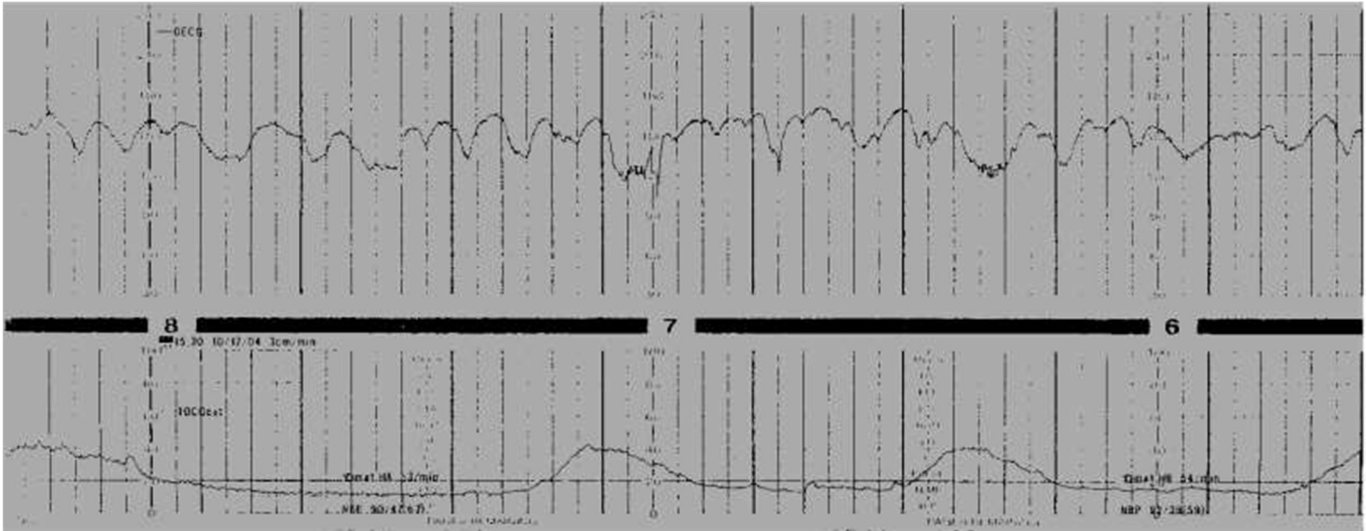


46. The decelerations above are defined as
- a. early
  - b. late
  - c. variable

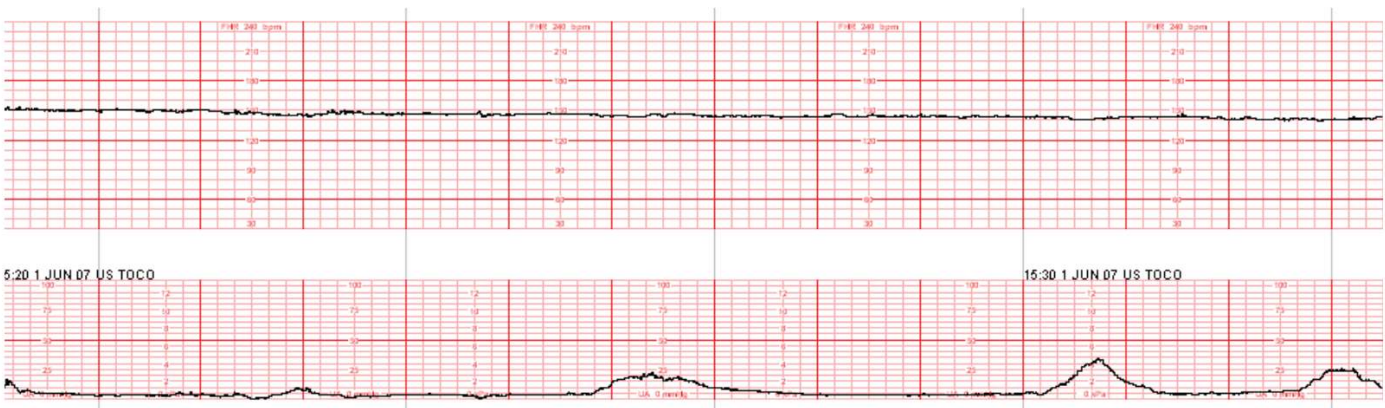


47. According to the NICHD, the variability in the above strip is
- a. marked
  - b. moderate
  - c. unable to determine

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48. The fetal heart rate baseline in this strip is
- 125 bpm
  - 145 bpm
  - not able to be determined



49. The fetal heart rate tracing above has looked like this for 10 minutes. The baseline should be documented as
- 140 bpm
  - 145 bpm
  - 150 bpm
50. One fetal heart rate pattern that is associated with an abnormal acid-base status is
- minimal variability with no accelerations or decelerations
  - recurrent variable decelerations with absent variability
  - tachycardia with minimal variability
51. A woman who is 34 weeks' gestation is counting fetal movements each day. Today she counted 8 fetal movements in a two-hour period. Based on her kick counts, this woman should
- continue counting for one more hour
  - discontinue counting until tomorrow
  - notify her provider for further evaluation

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The following arterial cord gas values were obtained following delivery.

pH	6.96
pCO <sub>2</sub>	28
pO <sub>2</sub>	6
HCO <sub>3</sub>	4
Base deficit	42

52. These gases indicate
- metabolic acidemia
  - mixed acidemia
  - respiratory acidemia

The following arterial cord gas values were obtained following delivery.

pH	7.3
pCO <sub>2</sub>	45
pO <sub>2</sub>	25
HCO <sub>3</sub>	22
Base deficit	42

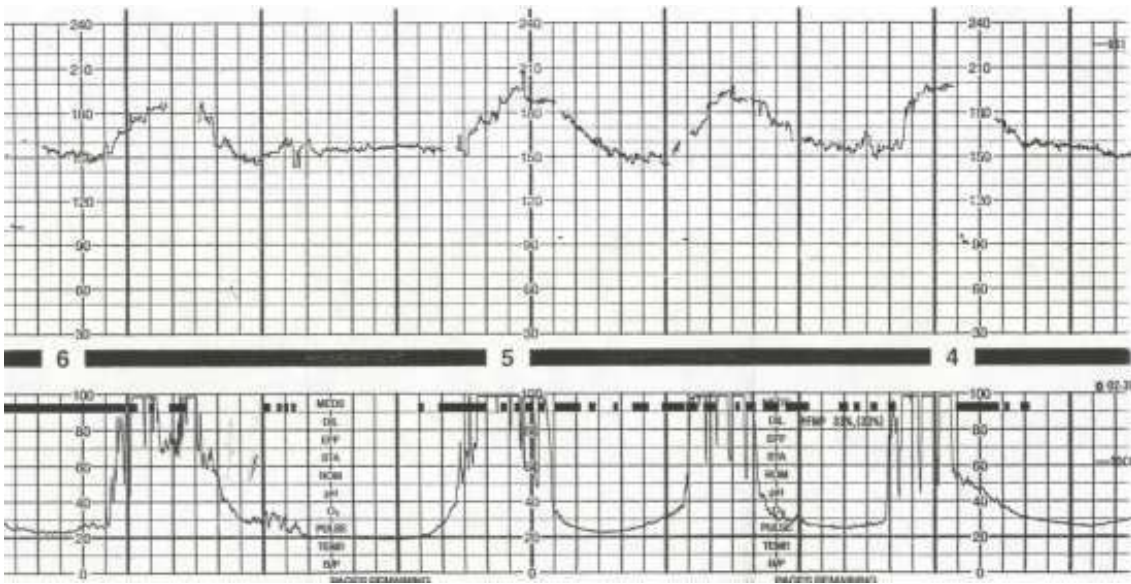
53. These gases indicate
- metabolic acidemia
  - normal gases
  - respiratory acidemia

The following arterial cord gas values were obtained following delivery.

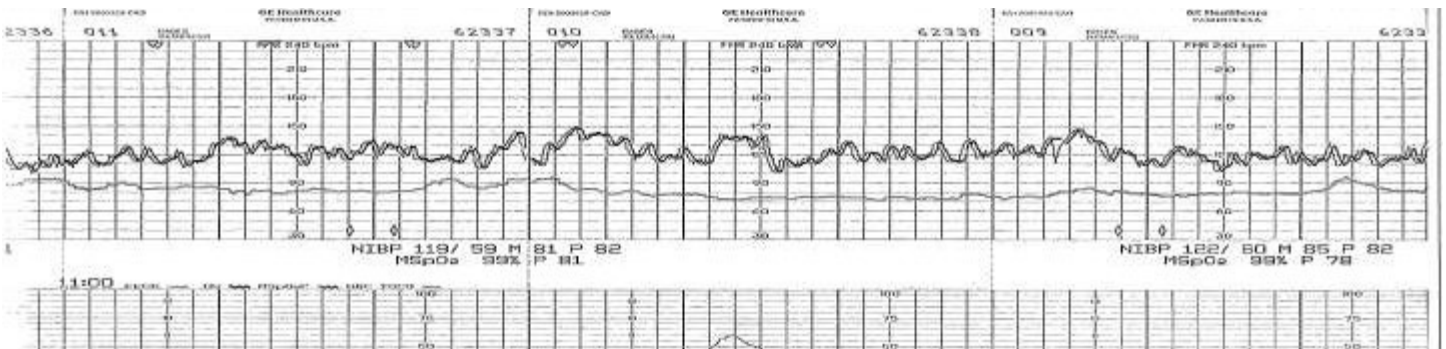
pH	7.1
pCO <sub>2</sub>	60
pO <sub>2</sub>	15
HCO <sub>3</sub>	18
Base deficit	12

54. These gases indicate
- metabolic acidemia
  - respiratory acidemia
  - mixed acidemia
55. AWHONN auscultation procedure states to count the FHR after uterine contractions for at least
- 5-10 seconds
  - 15-30 seconds
  - 30-60 seconds
56. Which of the following fetal heart characteristics can be determined using auscultation?
- baseline
  - type of decelerations
  - variability
57. One advantage of using a fetoscope is that it can
- allow more rapid detection of a baseline change
  - more accurately assess the fetal heart rate variability
  - verify the presence of an irregular rhythm

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58. The above external tracing is of a 40-week gestation gravida 2, para 1 who is pushing in the second stage of labor. The appropriate action in response to this tracing is to
- assess the maternal pulse
  - continue routine surveillance
  - initiate intrauterine resuscitation measures



59. The above external tracing is of a 38-week gestation twin pregnancy in labor with ruptured membranes. The patient is 5 cm, 100%, and 0 station. The appropriate initial action in response to this tracing is to
- Change the monitor due to possible equipment malfunction
  - Continue external monitoring given the normal tracings
  - Readjust the ultrasound transducer
60. Which one of the following fetal heart rate patterns could be documented using auscultation?
- bradycardia
  - marked variability
  - late decelerations
61. A biophysical score of 6 is considered
- abnormal
  - normal
  - equivocal (suspicious)

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A modified biophysical profile shows the following:

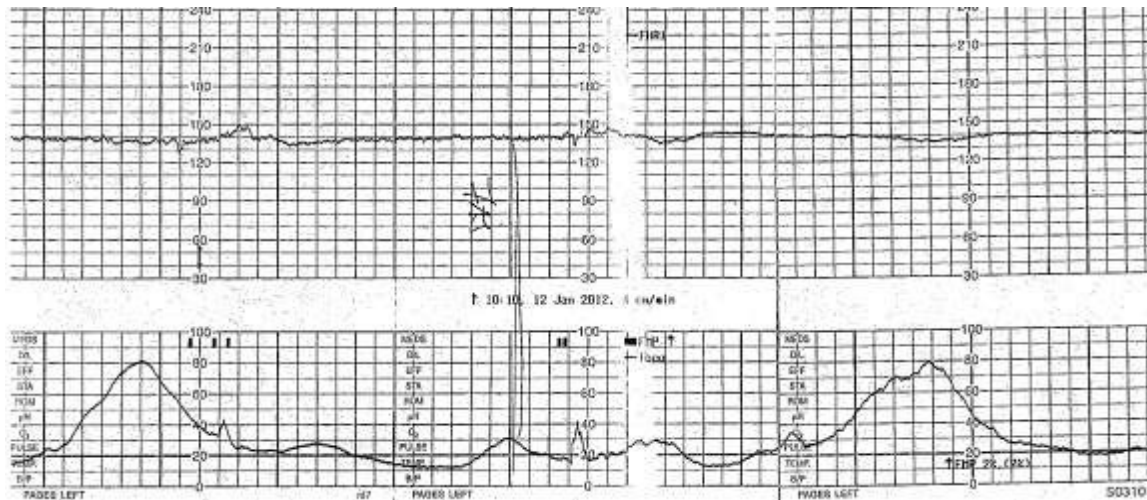
Nonstress test is reactive with moderate variability and  
Amniotic fluid index (AFI) is 2

62. This test would be interpreted as:

- a. abnormal
- b. equivocal
- c. normal

63. As fetal hypoxia (asphyxia) worsens, the last component of the biophysical profile to disappear is fetal

- a. breathing
- b. movement
- c. tone



The above tracing is of a 38-week gestation primigravida who complains of decreased fetal movement. The patient was asked to come into the labor unit for monitoring. This is the last 10 minutes of a 40-minute tracing. The previous 30 minutes demonstrated a baseline of 140 bpm, minimal variability, no accelerations and no decelerations. The line on the tracing indicates where fetal vibroacoustic stimulation was performed.

64. Based upon this tracing, the next action is to

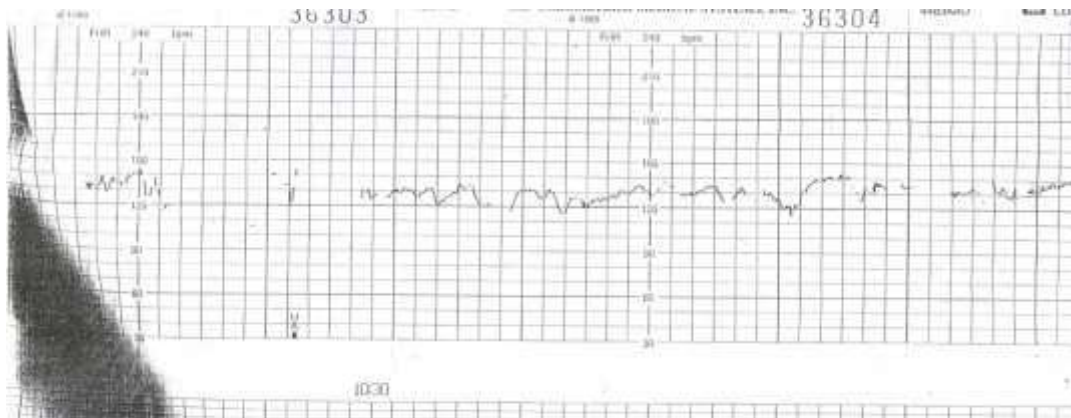
- a. deliver the patient immediately by cesarean
- b. dismiss the patient with instructions regarding kick counts
- c. perform a biophysical profile



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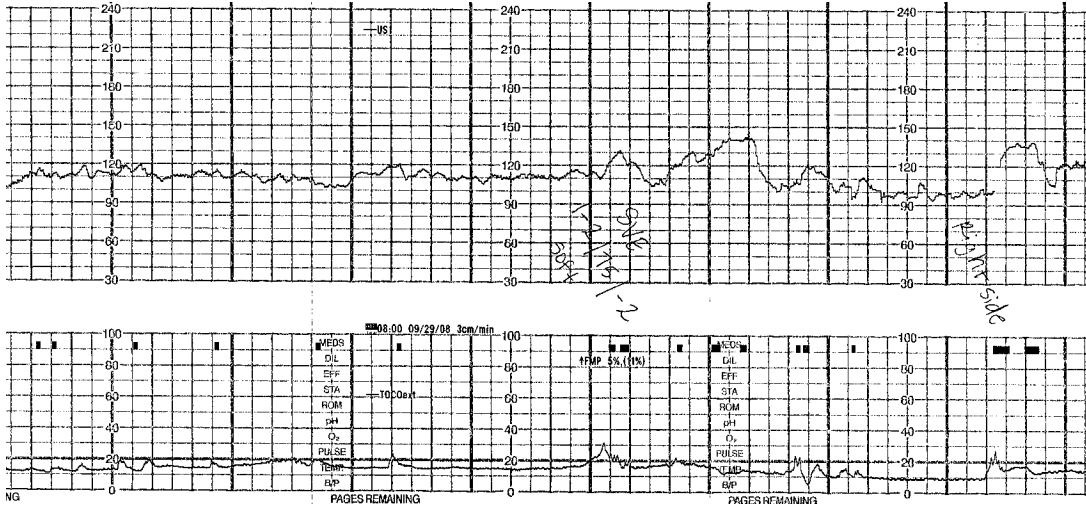


65. Above is a contraction stress test of a 36-week gestation fetus whose established baseline is 140 bpm. This test would be interpreted as
- equivocal-suspicious
  - negative
  - positive



66. The nonstress test above is of a gravida 5 para 4 at 37 weeks' gestation admitted with patient stating that she has not felt the baby move since last evening. Maternal vital signs on admission are (TPR) 99-120-22 and BP is 124/74. Based upon the history and the tracing above, the most appropriate initial action is to
- continue monitoring
  - have the patient drink some orange juice
  - palpate the maternal pulse
67. Fetal bradycardia in the second stage of labor following a previously normal tracing may be caused by:
- Fetal hypoxemia
  - Increased fetal vagal stimulation
  - Uteroplacental insufficiency

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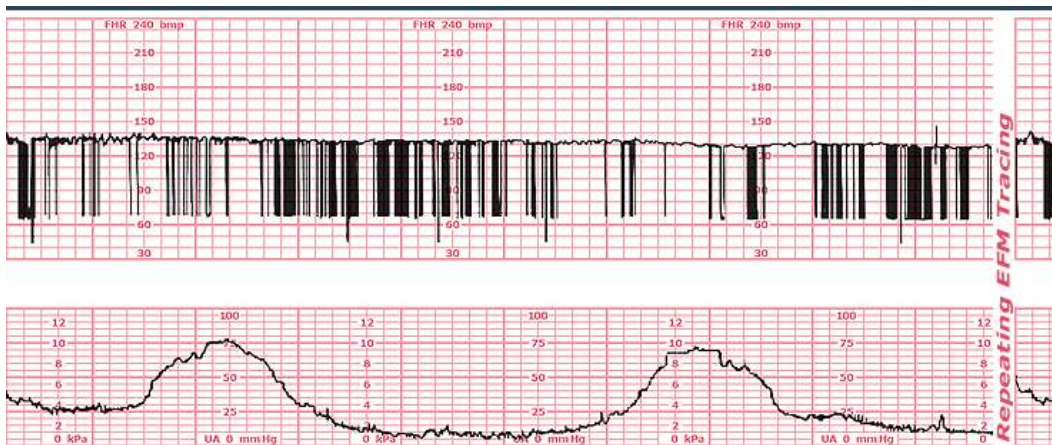
68. The tracing above is the final 20 minutes of a nonstress test for a 37-week gestation fetus. No decelerations have been noted. This test would be interpreted as
- equivocal
  - nonreactive
  - reactive
69. Which condition below is usually accompanied by contractions that are low amplitude high frequency (LAHF)?
- Abruptio placenta
  - Uterine rupture
  - Placenta previa



70. In the above tracing of a 40-week gestation fetus with a persistent nonreactive tracing, the provider uses acoustic stimulation. The response indicates that the fetal acid-base status is
- acidemic
  - indeterminate
  - normal

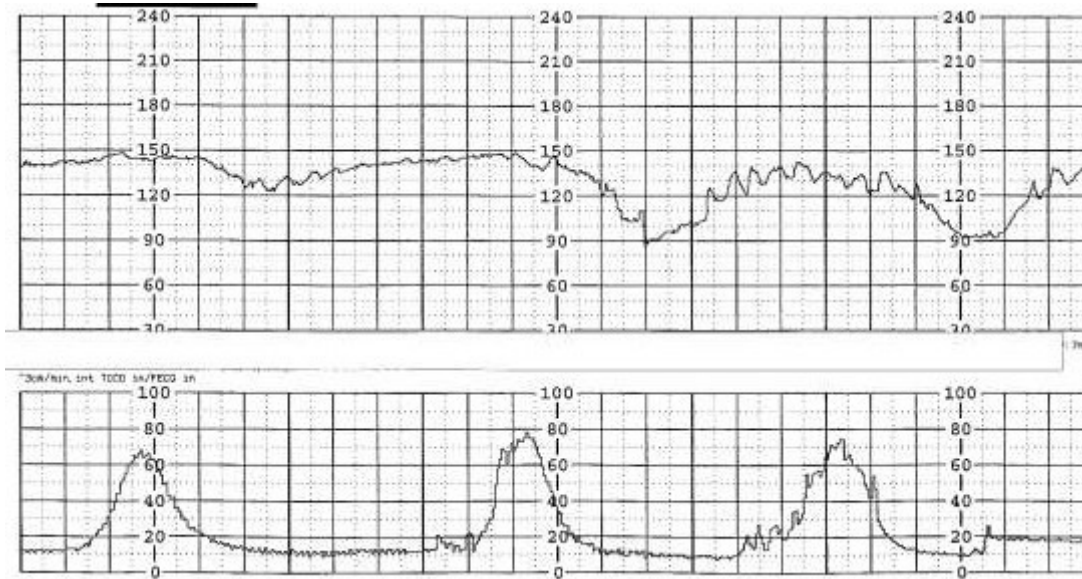
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71. In a patient without obstetrical or medical complications, the fetal heart rate tracing during the first stage of labor (active phase) should be reviewed approximately every
- 5 minutes
  - 15 minutes
  - 30 minutes
72. Activation of fetal peripheral chemoreceptors results in which fetal heart rate change
- Decrease
  - Increase
  - No change
73. Which one of the following statements is true regarding the predictability of fetal monitoring tracings?
- a Category II tracing is highly predictive of a poorly oxygenated fetus
  - a normal tracing (Category I) is highly predictive of a well oxygenated fetus
  - there is no difference in the predictability of a normal and abnormal tracing
74. The proposed underlying physiology of marked variability is an
- excessive sympathetic response
  - immature autonomic nervous system
  - increased vagal activity related to maturity of the autonomic nervous system
75. The underlying physiology of fetal tachycardia from maternal exercise is a
- parasympathetic response to the release of acetylcholine
  - release of arginine vasopressin from the posterior pituitary
  - sympathetic response to a period of reduced fetal oxygenation



76. The above internal fetal monitoring tracing of a term fetus depicts:
- Artifact
  - Atrial flutter
  - Dropped beats
77. The legal term that describes a failure to meet the required standard of care is
- breach of duty
  - negligence
  - proximate cause

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78. The nurse asks the provider to come in now to review the above fetal heart tracing. The provider refuses to come in and tells the nurse to watch the tracing and call back in 30 minutes. The next step the nurse should take is to
- ask a coworker to look at the tracing and call the provider
  - initiate the chain of command
  - watch the tracing and call the provider back in 30 minutes
79. Doppler or ultrasound transducer detects the fetal heart rate by:
- Sound made by the heart beat
  - Movement of fetal heart valves
  - Electrical impulses of the heart
80. The most frequent form of dysrhythmias is:
- Premature atrial contractions (PAC)
  - Supraventricular tachycardia (SVT)
  - Complete heart block
81. Catecholamines are hormones made chiefly by the adrenal glands, located above the kidneys. Catecholamines increase heart rate, blood pressure. The main catecholamines are:
- acetylcholine, dopamine, estrogen
  - oxytocin, estrogen, and epinephrine
  - adrenaline (epinephrine), noradrenaline (norepinephrine), and dopamine
82. Which of the following most closely approximates normal umbilical artery pH at term?
- 7.0 – 7.1
  - 7.2 – 7.3
  - 7.3 – 7.4
83. Approximately \_\_\_ of maternal cardiac output flows through the uterus of the term gestation
- 5% (250 mL)
  - 10% (500 mL)
  - 30% (1500 mL)

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84. Based on more recent studies, the biologic half-life of oxytocin is generally agreed to be:
- 3 to 5 minutes
  - 6 to 8 minutes
  - 10 to 12 minutes
85. Uterine response to oxytocin
- 3 – 5 minutes
  - 5 – 8 minutes
  - 10 – 12 minutes
86. Oligohydramnios is usually attributed to:
- Kidney function
  - Heart function
  - Adrenal function
87. The fetus gets its O<sub>2</sub> from maternal blood in the placenta. How would the O<sub>2</sub> dissociation curve for fetal hemoglobin compare with that of maternal hemoglobin?
- The fetal curve will be to the right.
  - The fetal and maternal curves will be the same.
  - The fetal curve will be to the left.
88. Compared to adult hemoglobin, fetal hemoglobin has
- a significantly higher affinity for oxygen
  - a lower affinity for oxygen
  - the same affinity for oxygen
89. Which of the following conditions cause the hemoglobin dissociation curve to shift to the right?
- Fetal hemoglobin
  - Acidosis (low pH, high CO<sub>2</sub>, lactic acid)
  - Low temperature
90. Which IV fluid is most appropriate for maternal administration for intrauterine resuscitation?
- Lactated Ringer's solution
  - D5L/R
  - Normal saline
91. An electronic fetal monitoring (EFM) tracing with moderate variability, no accelerations, and early decelerations would be classified as
- normal (category I).
  - indeterminate (category II).
  - abnormal (category III).
92. An EFM tracing with marked variability would be classified as
- normal (category I).
  - indeterminate (category II).
  - abnormal (category III).
93. The preterm fetus
- is more susceptible to hypoxic insults during labor than the term fetus.
  - requires internal monitoring if oxytocin is used for labor induction or augmentation.
  - should be born via cesarean section unless there are maternal contraindications.

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94. Oxygen is transferred from the mother to the fetus via the placenta through
- active transport.
  - passive diffusion.
  - facilitated diffusion.
95. In the context of hypoxemia, fetal blood flow is shifted to the
- brain.
  - liver.
  - lungs.
96. Baroreceptor-mediated decelerations are
- early.
  - late.
  - variable.
97. Umbilical artery blood gas results reflect the status of the
- mother.
  - fetus.
  - placenta.
98. The underlying cause of early deceleration is:
- Central vagal stimulation
  - Baroreceptor response suppression
  - Increased peripheral resistance
99. To perform a vibroacoustic stimulation test, a stimulus is applied to the maternal abdomen for 1-2 seconds and if necessary, it may be repeated up to three (3) times for progressively longer durations of up to \_\_\_\_ seconds.
- 3
  - 5
  - 10
100. Patients with a history of one prior cesarean section is admitted for induction of labor at 39 weeks. Twelve hours into the induction, she complains of a persistent dull abdominal pain. On initial exam, abdomen was soft and no vaginal bleeding. Thirty minutes after this event, the nurse noticed recurrent variable decelerations, cessation of uterine contractions, a change in uterine shape, and small vaginal bleeding. Fetal heart tracing evolved into late decelerations with minimal variability and subsequently, bradycardia. This clinical symptom is highly suspicious of
- vasa previa
  - uterine rupture
  - placenta abruption

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Answer Key

- |       |        |
|-------|--------|
| 1. B  | 51. C  |
| 2. C  | 52. A  |
| 3. A  | 53. B  |
| 4. B  | 54. C  |
| 5. C  | 55. C  |
| 6. B  | 56. A  |
| 7. B  | 57. C  |
| 8. B  | 58. A  |
| 9. A  | 59. C  |
| 10. A | 60. A  |
| 11. C | 61. C  |
| 12. C | 62. A  |
| 13. A | 63. C  |
| 14. A | 64. C  |
| 15. C | 65. B  |
| 16. B | 66. C  |
| 17. C | 67. B  |
| 18. B | 68. C  |
| 19. C | 69. A  |
| 20. B | 70. C  |
| 21. A | 71. C  |
| 22. B | 72. A  |
| 23. A | 73. B  |
| 24. A | 74. A  |
| 25. C | 75. C  |
| 26. C | 76. C  |
| 27. C | 77. B  |
| 28. A | 78. B  |
| 29. A | 79. B  |
| 30. A | 80. A  |
| 31. C | 81. C  |
| 32. C | 82. B  |
| 33. B | 83. B  |
| 34. C | 84. C  |
| 35. B | 85. A  |
| 36. A | 86. A  |
| 37. C | 87. C  |
| 38. A | 88. A  |
| 39. B | 89. B  |
| 40. A | 90. A  |
| 41. B | 91. A  |
| 42. C | 92. B  |
| 43. B | 93. A  |
| 44. B | 94. B  |
| 45. C | 95. A  |
| 46. A | 96. C  |
| 47. A | 97. B  |
| 48. C | 98. A  |
| 49. B | 99. A  |
| 50. B | 100. B |