

## INTRAPARTUM FETAL HEALTH SURVEILLANCE

To assess uterine contractions and fetal heart rate pattern in labour, recognize abnormalities and respond appropriately.

### Definitions and Abbreviations

**Electronic fetal monitoring (EFM)** – the use of an electronic fetal heart rate monitor either externally or internally for the continuous evaluation of fetal heart rate pattern in labour.

**Fetal scalp electrode (FSE)** – internal signal source for electronically monitoring the fetal heart rate inserted through the vagina and cervix and attached to the presenting part

**External tocotransducer** – Pressure sensitive electronic device for measuring uterine activity transabdominally – detects changes in surface pressure

**Intermittent auscultation (IA)** – a listening technique of counting fetal heart beats following established protocols.

**Intrauterine Pressure Catheter (IUPC)** – catheter inserted into uterine cavity to assess uterine activity and pressure (measured in mmHg) by electronic means using a solid sensor tip.

**Intermittent decelerations** – decelerations occurring with < 50% of contractions in a 20 minute window.

**Recurrent decelerations** – decelerations that occur with  $\geq$  50% of contractions in a 20 minute window.

**Repetitive decelerations** – 3 or more decelerations in a row

**Tachysystole** – Any excessive uterine activity (UA);  $\geq$  5 Contractions in 10 minutes

## ASSESSMENT

### **General**

- In order to facilitate informed choice, patients should be provided with information and support that is evidence based, culturally appropriate and tailored to their needs.
- Determine if the labouring woman has risk factors for adverse perinatal outcomes (refer to Appendix 1).
- Using the appropriate methods of fetal health surveillance – IA or EFM, assess and document fetal heart rate at the *recommended* frequency.
- "Intermittent auscultation is the *recommended* method of fetal surveillance in low risk pregnancies." (SOGC, 2020).
  - Principles of intrapartum FHS are Classify, Interpret, Respond.
  - Consider the overall clinical picture when determining fetal health surveillance classification

and clinical response.

- Assess and document maternal heart based on recommended frequency, which varies by stage of labour and membrane status.
- Discontinue using the term “strip”, and use tracing to describe the EFM output.
- Women in active labour should receive continuous close support by an appropriately trained person. (I-A evidence)
- Use SBAR to communicate FHS findings.

## **MANAGEMENT**

### **Uterine Activity (UA)**

- Identify uterine contraction patterns as a first step to describe the environment of the fetus as it can adversely affect oxygen delivery to the fetus
- Assessment of uterine activity is performed in conjunction with IA or EFM, and is necessary in order to correctly classify the fetal heart rate patterns with EFM
- The bedside caregiver (nurse or midwife) assesses the average number of contractions in a 10 minute window over the previous 30 minutes
- If you are assessing FHS every 15 minutes, pick a 10 minute window within your 15 minute period, and document the number of contractions – you also document the length, intensity and resting tone
- The term “tachysystole” is used for any excessive uterine activity (> 5 contractions in a 10 minute window averaged over 30 minutes).
- If you identify >5 contractions in your 10 minute window, continue to assess contraction frequency to determine if tachysystole is present (this would be > 15 contractions in the 30 minutes providing an average of more than 5 contractions in 10 minutes)
- If a tracing is atypical or abnormal in the first 10 minutes of 5 contractions; do not delay, a response is required.
- The presence of tachysystole when using IA denotes abnormal IA and therefore is an indication to initiate EFM. If the FHR is atypical or abnormal in the 1<sup>st</sup> 10 minutes of tachysystole, initiate a response without averaging over 30 min.
- Palpate by hand and/or assess using an external tocotransducer or an internal IUPC

**NOTE:** The external tocotransducer does NOT measure the contraction intensity or uterine resting tone

**Response to Tachysystole**

With IA	Normal EFM tracing	Atypical or Abnormal EFM tracing
<ul style="list-style-type: none"> <li>Initiate EFM</li> </ul>	<ul style="list-style-type: none"> <li>Continue EFM</li> <li>Decrease or discontinue oxytocin per facility procedure</li> <li>Remain with patient until normal UA is observed</li> <li>Notify appropriate care provider</li> <li>Consider tocolysis (eg: IV nitroglycerine) to decrease uterine activity</li> </ul>	<ul style="list-style-type: none"> <li>If there are more than 5 contractions in a 10 minute segment associated with FHR changes, the clinical response should be initiated immediately and not wait for 30 minutes</li> <li>Continue EFM</li> <li>Remove PGE<sub>2</sub>/decrease or discontinue oxytocin as per facility procedure</li> <li>Consider other etiologies such as abruption</li> <li>Remain with patient until normal UA is observed</li> <li>Notify appropriate care provider</li> <li>Initiate additional intrauterine resuscitation measures as needed</li> <li>Consider tocolysis (eg: IV nitroglycerine) to decrease uterine activity</li> </ul>

**Intermittent Auscultation (IA)**

*IA requires both listening and counting of the FHR*

**Indications for IA**

- Healthy term  $\geq 37$  weeks without perinatal risk factors for adverse perinatal outcomes at initial assessment in triage and throughout labour
- Assess FHR before:
  - Initiation of labour enhancing procedures (e.g. amniotomy)
  - Administration of medication
  - Administration or initiation of analgesia/anaesthesia
  - Transfer or discharge of the woman

- Assess FHR after:
  - Admission of patient
  - Artificial or spontaneous rupture of membranes
  - Vaginal exams
  - Abnormal uterine activity patterns (e.g. increased resting tone or tachysystole)
  - Any untoward event during labour (e.g. maternal hypotension, bleeding)
  - Administration or initiation of analgesia/anaesthesia
  - If patient begins labour after cervical ripening, the method of intrapartum FHS is based on any risk factors. IA may be the most appropriate method in some cases.

### Recommended Procedure for IA

- Assess uterine activity
  - Perform Leopold's maneuvers to identify fetal presentation and position
  - Place the Doppler over the area of maximum intensity of fetal heart sounds, usually over the fetal back or shoulder
- Note:** Do not use an electronic fetal monitor transducer connected to a hard drive even if the paper is turned off. The tracing is saved on the hard drive and retained in the medical record but not seen by the care provider.
- Establish a baseline heart rate by listening and counting between uterine contractions for a full minute (60 seconds). Simultaneously palpate maternal pulse to differentiate it from FHR. Try to do this in the absence of fetal activity, acceleration or deceleration.
  - Once the FHR baseline is established, auscultate the FHR **immediately** after a contraction for ongoing assessments.

### Techniques to count the FHR include:

- Count for a full 60 seconds
- Count for 2 intervals of 30 seconds and add together
- Count for 4 intervals of 15 seconds and add together
- Count for 6 intervals of 10 seconds – this technique can be used to screen for post contraction rates that are lower than the baseline

**Recommended frequency and documentation of intermittent auscultation**

<p>Frequency of assessments, response and documentation should always consider maternal fetal status and should occur more frequently in the presence of abnormal FHS or other changes in the maternal fetal condition.</p>		
First stage: Latent phase	First stage: Active phase Second stage: passive phase	Second stage: Active phase
<ul style="list-style-type: none"> <li>Initial assessment</li> <li>Q1 hr if admitted to a L&amp;D unit in hospital</li> <li>If transferred or discharged</li> <li>Individualized based on maternal fetal status if in triage or midwifery care at home (not admitted to hospital)</li> </ul>	<ul style="list-style-type: none"> <li>Q 15 – 30 minutes</li> </ul>	<p>Q 5 minutes or immediately following each contraction</p>
<p><b>Maternal heart rate (MHR)</b> on admission and when determining baseline FHR</p>	<p><b>MHR</b> Q 4 hrs with intact membranes Q 2 hrs with ruptured membranes</p>	<p><b>MHR</b> Q 15 – 30 minutes</p>
<p><b>*Additionally do MHR any time there is uncertainty between MHR and FHR and if intrauterine resuscitation is initiated.</b></p>		

**Systematic interpretation of IA, assess:**

- UA – assess frequency, duration, intensity and resting tone by palpation. The presence of tachysystole classifies findings as abnormal – initiate EFM
- Baseline FHR
- Determine maternal heart rate (MHR)
- Rhythm - regular or irregular
- Accelerations – the absence of accelerations does not make the IA abnormal

- Decelerations
- Classify IA findings as normal or abnormal
- Evaluate the whole clinical picture
- Document IA and uterine characteristics as per stages of labour

**NOTE:** if deceleration heard, assess the fetal heart immediately following the next contraction, or EFM may be immediately applied. Intrauterine resuscitation may be done between contractions.

**Classification of IA findings**

Normal	Abnormal
<ul style="list-style-type: none"> <li>• Normal contraction pattern</li> <li>• Baseline rate between 110 – 160 bpm</li> <li>• The presence of increases in FHR is not required*</li> <li>• Absence of decreases in the FHR</li> </ul>	<ul style="list-style-type: none"> <li>• Tachysystole</li> <li>• Abnormal baseline rate: tachycardia, bradycardia or changing FHR baseline (increasing or decreasing over time)</li> <li>• Presence of decelerations**</li> <li>• Arrhythmia</li> </ul>
<p>*since auscultation is done intermittently, the absence of acceleration is not necessarily concerning and does not make auscultation abnormal. Accelerations suggest the presence of fetal well-being. When considering the significance of the absence of accelerations it is important to consider the auscultation findings in light of the clinical picture including the general activity of the fetus, the stage of labour and other risk factors.</p> <p>** if a deceleration is heard by IA immediately following a contraction, assess further by changing maternal position then listen after the next contraction. If deceleration persists after the next contraction, initiate EFM, if not already initiated, to confirm FHR pattern. Intrauterine resuscitation should be initiated as required. Discontinue EFM if the tracing is normal after 20 minutes and the findings with the whole clinical picture in mind have been reviewed.</p>	

**Electronic Fetal Monitoring (EFM)**

Indications for EFM – conditions associated with adverse fetal outcomes see Appendix 1

- Discuss risk factors with the patient and when EFM may be beneficial
- Consult with PCP about EFM use in the presence of risk factors or when the severity of the risk factors require further discussion

**Recommended frequency and documentation of EFM assessments (UA, FHR and MHR)**

Frequency of assessments, response and documentation should always consider maternal – fetal status and will need to occur more frequently in the presence of atypical or abnormal FHS or other changes in the maternal – fetal condition.		
First stage: Latent phase	First stage: Active phase Second stage: passive stage	Second stage: active phase
Initial assessment Q1 hr if admission to hospital Individualize based on maternal fetal status if in triage	Q 15 minutes	At least every 15 minutes if there is continuous presence of a caregiver and a continuous tracing.
<b>Maternal heart rate (MHR)</b> on admission and when determining baseline FHR	<b>MHR</b> Q 4 hrs with intact membranes Q 2 hrs with ruptured membranes	<b>MHR</b> Q 15 – 30 minutes
<b>*Additionally do MHR any time there is uncertainty between MHR and FHR and if intrauterine resuscitation is initiated.</b>		

**Systematic interpretation of EFM, assess:**

- Quality of tracing – need an interpretable tracing
- Paper speed and graph range – move toward a National paper speed of 3 cm/min
- Mode – external or internal
- Uterine activity pattern – frequency, duration, intensity and resting tone by palpation if external tocotransducer used
- Baseline FHR
- Baseline variability
- Accelerations
- Decelerations – periodic or episodic
- Interpretation
- Classify EFM tracing as Normal, Atypical or Abnormal ( see Appendix 2)
- Response to findings

**Consider** the whole clinical picture

Consider internal fetal spiral electrode and/or intrauterine pressure catheter (IUPC) if available, when external monitoring does not provide an interpretable tracing.

\*If EFM is indicated for a patient who wishes to ambulate or not to be in bed in labour, telemetry should be used where available (SOGC, 2020).



Table 1 **Classification of intrapartum EFM tracings**

	Normal	Atypical	Abnormal
<b>Uterine activity</b>	• Normal contraction pattern	• Tachysystole may be present with normal, atypical, or abnormal tracings; monitor closely for concerning FHR characteristics	
<b>Baseline</b>	• 110–160 bpm	• 100–110 bpm • >160 bpm for 30–80 minutes • Rising baseline • Arrhythmia (Irregular rhythm)	• <100 bpm • >160 bpm for >80 minutes • Erratic baseline
<b>Variability</b>	• 6–25 bpm • ≤5 bpm for <40 minutes	• ≤5 bpm for 40–80 minutes	• ≤5 bpm for >80 minutes • ≥25 bpm for >10 minutes • Sinusoidal
<b>Acceleration</b>	• Spontaneous accelerations but not required • Acceleration with scalp stimulation	• Absence of acceleration with scalp stimulation	• Usually absent (accelerations, if present, do not change classification of tracing)
<b>Deceleration</b>	• None • Non-repetitive uncomplicated variable decelerations • Early decelerations	• Repetitive uncomplicated variables • Non-repetitive complicated variables • Intermittent late decelerations • Single prolonged deceleration ≥2 minutes but <3 minutes	• Repetitive complicated variables • Recurrent late decelerations • Single prolonged deceleration ≥3 minutes but <10 minutes
<b>Interpret clinically (in light of total situation)</b>	• No evidence of fetal compromise	• Physiologic response	• Possible fetal compromise
<b>Terminology</b>	<b>Recurrent:</b> Decelerations occur with ≥50% of uterine contractions in any 20-minute window. <b>Intermittent:</b> Decelerations occur with <50% of uterine contractions in any 20-minute segment. <b>Repetitive:</b> ≥3 in a row <b>Non-repetitive:</b> 1 or maximally 2 in a row		

EFM: electronic fetal monitoring; FHR: fetal heart rate.

(Dore et al., 2020, p. 338)

### Nursing Diagnosis

- Normal or abnormal IA responses to UA or labour (see Table or Appendix..)
- Normal, atypical or abnormal FHR tracings in response to UA (see Table or Appendix...)

### Special Considerations/Precautions

- Both IA and EFM are intensive fetal health surveillance methods that require close nursing support during active labour.
- The use of an established protocol addressing the technique, frequency of assessments and response is recommended by SOGC (2020).
- Fetal surveillance by IA or EFM requires the presence of a professional caregiver (nurse, midwife and/or physician) with knowledge of fetal surveillance methods response and labour support strategies (SOGC, 2020).
- Implement formal education requirements in FHS for all providers of intrapartum obstetric care with a review every 2 years (SOGC, 2020; CAPWHN, 2019).



- When communicating with colleagues and documenting FHS, consistent fetal heart surveillance terminology should be used to describe uterine activity, FHR and the classification.
- Palpate maternal radial pulse to differentiate between maternal and fetal heart rate.
- When a change in the patient’s condition occurs (such as rupture of membranes with meconium, development of bleeding or other concerning clinical findings) evaluation of the fetal heart rate using the most appropriate method should be instituted and the PCP be notified.

**Intervention**

Table 2 Response to IA and EFM Tracing Classifications

<b>Always</b>			
<ul style="list-style-type: none"> <li>• Focus on communication and teamwork including the woman and family</li> <li>• Evaluate FHS considering overall clinical picture</li> <li>• Actions often occur simultaneously</li> </ul>			
Normal IA or EFM	Abnormal IA	Atypical EFM	Abnormal EFM
<ul style="list-style-type: none"> <li>• Continue with monitoring method and provide supportive care;</li> <li>• If using EFM, it may be interrupted for up to 30 minutes if maternal–fetal condition stable and if oxytocin rate is stable</li> </ul>	<ul style="list-style-type: none"> <li>• Have woman change position and repeat IA OR immediately initiate EFM</li> <li>• If deceleration persists after next contraction, initiate EFM if not already initiated to confirm FHR pattern</li> <li>• If EFM is initiated for abnormal IA, IA can be resumed if the tracing is normal for 20 minutes and no maternal–fetal risk factors are identified based on review of the overall clinical picture</li> <li>• If uncertain whether you heard a deceleration or if EFM is unavailable, reposition the woman and listen after the next contraction. If decelerations are confirmed by intermittent auscultation, EFM is recommended in order to confirm the fetal heart rate pattern</li> </ul>	<p><b>VIGILANCE</b></p> <ul style="list-style-type: none"> <li>• Vigilant assessment required, especially when combined features are present</li> <li>• Determine significance/cause and correct reversible cause</li> <li>• Initiate intrauterine resuscitation</li> <li>• Determine duration of effect and reserve tolerance of fetus</li> <li>• Consider further fetal evaluation (scalp stimulation and/or FSBS, ultrasound)</li> <li>• Consider transfer/delivery if tracing persists or deteriorates</li> </ul>	<p><b>ACTION REQUIRED</b></p> <ul style="list-style-type: none"> <li>• Determine significance/cause and correct reversible cause</li> <li>• Initiate intrauterine resuscitation</li> <li>• Determine duration of effect and reserve tolerance of fetus</li> <li>• FSBS if available</li> <li>• Notify pediatric and anaesthesia services</li> <li>• Expedite delivery (operative vaginal or CD) unless delivery is imminent or there is evidence of normal FSBS</li> </ul>

CD: cesarean delivery; EFM: electronic fetal monitoring; FSBS: fetal scalp blood sampling; FHS: fetal health surveillance; IA: intermittent auscultation.

(Dore et al., 2020, p.340)

**Intrauterine Resuscitation**

- Remove vaginal PGE<sub>2</sub> / stop or decrease oxytocin
- Change maternal position to left or right lateral
- Check maternal vital signs including differentiation of MHR from FHR
- Ask patient to modify pushing or pause pushing efforts in the active 2<sup>nd</sup> stage
- Improve maternal hydration with an IV bolus only if indicated (e.g. maternal hypovolemia and/or hypotension) and be aware of fluid balance
- Perform vaginal exam to rule out cord prolapse and assess progress
- Consider tocolysis in the presence of tachysystole with atypical or abnormal tracing
- Consider amnioinfusion in the presence of complicated variable decelerations

- Provide supportive care to reduce maternal anxiety
- Consider oxygen by mask only when maternal hypoxia and /or hypovolemia is suspected or confirmed

### Intended Clinical Outcomes

- Appropriate method of fetal surveillance is used
- Normal, atypical and abnormal tracings are interpreted and managed. Appropriate interventions are carried out
- Detection of potential fetal decompensation and interventions provided to prevent perinatal/neonatal morbidity or mortality

### Education

- Engage patient in decision making for IA and EFM
- Discuss patient's wishes, concerns and questions regarding the benefits, limitations and risks of IA and EFM as indicated

### Documentation

Document on partogram, interprofessional notes or in electronic health record.

### For IA

- Use numerically defined terms – bradycardia, tachycardia
- Describe:
  - Numerical baseline rate in bpm
  - Rhythm as regular or irregular
- Uterine activity – uterine contractions are quantified as the average number of contractions in a 10 minute window over the previous 30 minutes (NICHD, 2008; SOGC, 2020).
  - Duration of contraction from beginning to end in seconds
  - Contraction intensity by palpation as mild, moderate or strong
  - Resting tone – soft or firm
- Note presence or absence of accelerations or decelerations
- Interpret findings as normal or abnormal
- Record:
  - Maternal observations and assessments including MHR
  - Actions taken
  - Maternal and fetal responses to interventions
  - Communication with PCP. Can use SBAR for verbal communication.

### For EFM

- Indicate reason for initiating EFM
- Indicate mode of fetal heart rate and uterine monitoring: Fetal Heart – ultrasound or fetal scalp electrode. Uterine – external tocotransducer or intra-uterine pressure monitoring.
- Apply patient label to beginning of tracing
- Ensure the timing of nursing notation corresponds with the time on the monitor clock

- Describe:
  - Uterine activity
    - uterine contractions are quantified as the number of contractions present in a 10 minute period, averaged over 30 minutes. (NICHD, 2008; SOGC, 2020).
    - Duration of contraction from beginning to end in seconds
    - Contraction intensity by palpation as mild, moderate or strong
    - Resting tone – soft or firm
  - Baseline fetal heart rate
    - Average number in bpm rounded to increments of 5 bpm
    - Variability as absent (undetectable), minimal ( $\leq 5$  bpm), moderate (6 – 25 bpm) or marked ( $>25$  bpm) as determined over a 10 minute period of baseline. If there is at least a 1 minute window of moderate variability within a segment, the variability of that segment is moderate
    - Presence/ absence of accelerations
    - Presence and type of deceleration, nature of change (gradual or abrupt) as well as recurrent, intermittent or repetitive. Can also describe periodic or episodic.
- Classify tracing as normal, atypical or abnormal
- Record:
  - Maternal observations and assessments including MHR
  - Maternal and fetal responses to interventions
  - Other maternal observations and assessments
  - Actions taken – intrauterine resuscitation
  - Communication with care provider
- Can use SBAR to guide communication

APPENDIX 1

Risk Factors where use of EFM *may be* beneficial

Antenatal Conditions		
	EFM is recommended	EFM should be considered
Maternal	<ul style="list-style-type: none"> <li>Hypertensive disorders of pregnancy</li> <li>Diabetes: pre-existing and gestational</li> <li>Medical disease (e.g. cardiac, significant anemia, hyperthyroidism, vascular and/or renal disease)</li> <li>Motor vehicle collision/trauma (EFM recommended for a minimum of 4-6 hrs)</li> <li>Maternal perception of reduced or absent fetal movements</li> <li>Antepartum hemorrhage</li> </ul>	<ul style="list-style-type: none"> <li>*Pre-pregnant BMI &gt;35 Kg/m<sup>2</sup></li> <li>Other factors (smoking, substance use, limited prenatal care)</li> </ul> <p>*consider FECG+/- IUPC if needed</p>
Fetal	<ul style="list-style-type: none"> <li>Intrauterine growth restriction</li> <li>Abnormal umbilical artery Doppler velocimetry</li> <li>Single umbilical cord artery</li> <li>Oligohydramnios</li> <li>Polyhydramnios</li> <li>Abnormal BPP or NST</li> <li>Significant fetal abnormality (compatible with life)</li> <li>Isoimmunization</li> <li>Multiple pregnancy</li> <li>Velamentous cord insertion</li> </ul>	<ul style="list-style-type: none"> <li>3 or more nuchal loops</li> </ul>
Intrapartum Conditions		
Maternal	<ul style="list-style-type: none"> <li>Vaginal bleeding in labour</li> <li>Intrauterine infection/Chorioamnionitis</li> <li>Previous C/S or trial of labour after C/S</li> <li>Prolonged ROM at term (&gt;24 hrs)</li> <li>Combined spinal – epidural analgesia</li> <li>Oxytocin induction or augmentation</li> <li>Post term pregnancy (&gt;42 weeks gestation)</li> <li>Labour dystocia</li> <li>Tachysystole</li> <li>Unable to reliably determine UA and/or FHR with IA</li> </ul>	
Fetal	<ul style="list-style-type: none"> <li>Abnormal FHR on auscultation</li> <li>Prematurity (&gt; 37 weeks gestation)</li> <li>Meconium staining of the amniotic fluid</li> <li>Breech presentation</li> <li>FHR arrythmia</li> </ul>	

Adapted from SOGC, 2020

APPENDIX 2

Intrapartum ELECTRONIC FETAL MONITORING (EFM) Classification Table (Adapted from SOGC, 2020)			
	NORMAL	ATYPICAL	ABNORMAL
Uterine Activity	<ul style="list-style-type: none"> <li>Normal</li> <li>Tachysystole may be present with normal, atypical or abnormal FHS characteristics</li> </ul>		
Baseline	<ul style="list-style-type: none"> <li>110-160 bpm</li> </ul>	<ul style="list-style-type: none"> <li>100-110 bpm</li> <li>Greater than 160 bpm for 30-80 minutes</li> <li>Rising baseline</li> <li>Arrhythmia (irregular rhythm)</li> </ul>	<ul style="list-style-type: none"> <li>Less than 100 bpm</li> <li>Greater than 160 bpm for more than 80 minutes</li> <li>Erratic baseline</li> </ul>
Variability (amplitude in bpm)	<ul style="list-style-type: none"> <li>Moderate (6-25 bpm)</li> <li>Minimal or absent (less than or equal to 5 bpm) for less than 40 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Minimal or absent (less than or equal to 5 bpm) for less than 40-80 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Minimal or absent (less than or equal to 5 bpm) for more than 80 minutes</li> <li>Marked (greater than 25 bpm) for more than 10 minutes</li> <li>Sinusoidal</li> </ul>
Accelerations	<ul style="list-style-type: none"> <li>Spontaneous acceleration(s) (but not required to classify the tracing as normal)</li> <li>Acceleration with scalp stimulation</li> </ul>	<ul style="list-style-type: none"> <li>Absence of acceleration with scalp stimulation</li> </ul>	<ul style="list-style-type: none"> <li>Usually absent</li> <li>Accelerations, if present, do not change the classification of the tracing based on other characteristics</li> </ul>
Intermittent late decelerations	<ul style="list-style-type: none"> <li>None</li> <li>Non-repetitive uncomplicated variable decelerations</li> <li>Early decelerations</li> </ul>	<ul style="list-style-type: none"> <li>Repetitive uncomplicated variable decelerations</li> <li>Non-repetitive complicated variable decelerations</li> <li>Intermittent late decelerations</li> <li>Single prolonged deceleration lasting more than 2 minutes less than 3 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Repetitive complicated variable decelerations</li> <li>Recurrent late decelerations</li> <li>Single prolonged deceleration lasting more than 3 minutes but less than 10 minutes</li> </ul>
Clinical interpretation within the total clinical picture	<ul style="list-style-type: none"> <li>No evidence of fetal compromise</li> </ul>	<ul style="list-style-type: none"> <li>Physiologic response reflecting activation of compensatory mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>Possible fetal compromise</li> </ul>
Terminology	<ul style="list-style-type: none"> <li>Non-repetitive: 1 or maximum of 2 in a row</li> <li>Repetitive: greater than or equal to 3 in a row</li> <li>Intermittent: Decelerations occur with less than 50% of uterine contraction in any 20-minute window</li> <li>Recurrent: Decelerations occur with greater than or equal to 50% of uterine contractions in any 20-minute window</li> </ul>		

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References:

Dore, S., William, E., et al. (March, 2020). No. 396-Fetal Health Surveillance: Intrapartum Consensus Guideline. Journal of Obstetrics and Gynaecology Canada, Volume 42, Issue 3, 316 - 348.e9