## Interpretation of CTG

<table>
<thead>
<tr>
<th>Classification</th>
<th>Baseline</th>
<th>Variability</th>
<th>Decelerations</th>
<th>Accelerations</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low probability fetal compromise</td>
<td>GREEN</td>
<td>110–160 bpm</td>
<td>6–25 bpm</td>
<td>Nil</td>
<td>15 bpm* for 15 seconds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Abnormal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlikely fetal compromise</td>
<td>BLUE</td>
<td>100–109 bpm</td>
<td>Early OR Variable</td>
<td>Absent*</td>
<td>Continue CTG</td>
</tr>
<tr>
<td>Likely fetal compromise</td>
<td>YELLOW</td>
<td>&gt; 160 bpm OR Rising</td>
<td>3–5 bpm for &gt; 30 minutes</td>
<td>Complicated variable** OR Late</td>
<td>Correct reversible causes</td>
</tr>
<tr>
<td></td>
<td>RED</td>
<td>&lt; 100 bpm for &gt; 5 minutes</td>
<td>&lt; 3 bpm for &gt; 30 minutes OR Sinusoidal</td>
<td>Persistent YELLOW = RED</td>
<td>FBS OR Expedite birth</td>
</tr>
</tbody>
</table>

**Notes:**
1. *Significance of accelerations/no accelerations in an otherwise normal CTG is unclear
2. **Complicated Variable features:
   - Slow return to baseline FHR after the end of the contraction
   - Large amplitude (> 60 bpm) and/or long duration (> 60 seconds)
   - Presence of post deceleration smooth overshoots
3. All abnormal CTGs require further evaluation and management taking into account:
   1. Full clinical picture
   2. Identification of reversible causes
   3. Initiation of appropriate action including FBS and expediting birth if abnormality persist
   4. Follow local escalation procedures to senior midwifery and obstetric staff when CTG abnormal

**Abbreviations:**
- bpm: beats per minute
- >: greater than
- ≥: greater than or equal to
- <: less than
- CTG: cardiotocograph
- FBS: fetal blood sample
- FHR: Fetal heart rate

Adapted from: RANZCOG (2014) Intrapartum Fetal Surveillance Guidelines, NICE (2014) Interpretation of cardiotocograph traces, K2 Medical Systems Fetal Monitoring Training System


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