1.0 PURPOSE
To evaluate the response of the fetal heart rate to a reduction of blood flow in the intervillous space during an induced contraction.

2.0 INDICATIONS
Uteroplacental Pathology: (e.g.) Diabetes; Hypertension; Intrauterine Growth Restriction or Post-Dates.

3.0 CONTRAINDICATIONS
Patients at high risk for premature labour, prelabour rupture of membranes, multiple gestation, cervical incompetence, or conditions where vaginal delivery is contraindicated (e.g.) placenta previa, previous classical incision.

4.0 PHYSICIAN RESPONSIBILITIES
Only an Obstetrician may order the test. The Physician ordering the Contraction Stress Test should be in the facility as the Contraction Stress Test is conducted if the tracing is atypical or abnormal and the BPP is less than 5 out of 8.

5.0 PROCEDURE
5.1 The objective is to stimulate three contractions in 10 minutes lasting sixty seconds using either nipple stimulation or IV oxytocin.

5.2 Done in Labour and Delivery.

5.3 Check Physician’s order.

5.4 Perform Non-Stress Test. If atypical or abnormal, consult with physician prior to testing.

5.5 Position patient in semi-fowler’s position or left lateral position.
a) **Nipple Stimulation**
Instruct the patient to gently rub one nipple for 2 minutes and then stop for five minutes. Evaluate uterine activity. If inadequate contractions, repeat cycle. Bilateral nipple stimulation may be commenced if inadequate contractions continue. If after 30 minutes contractions do not meet the test criteria, IV oxytocin may be considered.

b) **Intravenous Oxytocin**
Prepare Oxytocin 10 units in 1000 ml Ringer’s Lactate, Normal Saline or 2/3 – 1/3.
Start Oxytocin at 1 milliunit per minute and increase by 1 milliunit every 30 minutes until test criteria are achieved.

**Interpretation of the Contraction Stress Test**

<table>
<thead>
<tr>
<th><strong>TEST CRITERIA</strong> – 3 contractions in 10 minutes lasting 60 seconds</th>
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</thead>
<tbody>
<tr>
<td><strong>Negative Test</strong></td>
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<tr>
<td>With uterine contractions that meet test criteria, no late decelerations are seen.</td>
</tr>
<tr>
<td><strong>Positive Test</strong></td>
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<tr>
<td>Late decelerations occur in more than 50% of contractions even when the test criterion of contraction pattern has not been met.</td>
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<tr>
<td><strong>Equivocal Test</strong></td>
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<tr>
<td>With uterine contractions that meet test criteria, with repetitive decelerations that are not late in timing or pattern.</td>
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<tr>
<td><strong>Unsatisfactory Test</strong></td>
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<tr>
<td>Contraction pattern criteria are not achieved or the quality if the tracing is inadequate for interpretation.</td>
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</table>

**NOTE:** If atypical or abnormal fetal heart rate patterns are noted, follow Fetal Health Surveillance Guidelines.
6.0 REFERENCES

