

Section: Division of Nursing  
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\* **PROCEDURE** \*  
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Index: 6160.063a  
Page: 1 of 3  
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HACKETTSTOWN COMMUNITY HOSPITAL

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**MATERNAL SERVICES**  
(Scope)

**TITLE: CONTRACTION STRESS TEST (CST) VIA NIPPLE STIMULATION**

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**PURPOSE:** To outline the procedure to induce uterine activity in order provide an assessment of fetal well being generally following the 38th week of pregnancy.

**EQUIPMENT:**

1. Outpatient Testing Chart Packet
2. Antepartum Record
3. Fetal Monitor
4. Stethoscope
5. Washcloths (optional)

**CONTENT:**

**A. PROCEDURE STEPS:**

1. Enter the patient into the QS system. Refer to the QMI Archival procedure.
2. Introduce yourself to patient.
3. Instruct patient to change into patient gown, if she chooses, and provide urine specimen.
4. Explain procedure to patient. Attach EFM per procedure. Obtain a minimum of a 20 minute FHR baseline tracing. Patient to assume semi-Fowler position with left or right tilt maintained with a pillow wedge.
5. Obtain maternal vital signs and record in QS system.
6. Obtain patient history and document on chart and in QS as appropriate.
7. Instruct patient in the use of the "mark" button when she feels fetal movement during the baseline tracing.
8. Review baseline tracing. If the patient is in labor and/or is having spontaneous contractions, has had 3 contractions of 40 seconds or more in 10 minutes, or having late or variable decelerations, contact the physician. Do not begin nipple stimulation. Evaluate the tracing for accelerations.

**KEY POINTS:**  
Only patients entered into the QS will have fetal monitor strip archived.

Send urine to Lab for urinalysis.

Assess fetal position using Leopold's maneuver and assess FHR over the fetal back.

Assess patient understanding of procedure and anxiety level. Teach to patient needs. An important part of testing is to provide reassurance to the patient of fetal well-being. Patient should be reassured with questions answered.

10. The patient should massage or roll or lightly brush her fingertips across the nipple of ONE breast using the palmar surface of the fingers. Titrate nipple stimulation based on contraction frequency. Intermittent stimulation is used to prevent hyperstimulation.
  - a. Stimulate one nipple 2 min. and rest 2 min. If no contraction after 4 cycles - Nurse must be at bedside to initiate procedure. Provide privacy.
  - b. Stimulate opposite nipple 2 min. and rest 2 min. If no contraction after 4 cycles -
  - c. Stimulate both nipples 2 min. and rest 2 min. If no contraction after 4 cycles -
  - d. Continuous stimulation of one nipple for 10 min.
11. Cease stimulation during contractions. Resume stimulation following contractions.
12. When bilateral stimulation fails to elicit contractions, warm washcloths may be applied.
13. If no contractions occur, or too few contractions occur after 30 minutes of stimulation, notify the provider.
14. Remove washcloths and cease stimulation after 3 contractions in 10 minutes. Contractions should be palpable and last 40-60 seconds.
15. If provider is present, have him/her review tracing or review tracing and notify provider of findings and obtain orders.
16. Evaluate CST as follows:  
**Negative CST:** No late or significant variable decelerations.  
**Positive CST (abnormal):** Late deceleration after 50% of contractions.  
**Equivocal or suspicious CST:** Intermittent late or significant variable decelerations.  
**Equivocal-Hyperstimulatory CST:** FHR decelerations more frequent than q 2min or lasting longer than 90 seconds.  
**Unsatisfactory CST:** Fewer than 3 contractions per 10 minutes of quality of tracing inadequate for interpretation. CSTs are evaluated according to the presence or absence of late decelerations. A negative CST is reassuring and is associated with low fetal death rate within week of test. A positive CST requires further evaluation or birth.
17. If test is negative, schedule the patient for future tests, as per the physician orders.

18. Discharge patient per provider orders.

B. Contraindications:

1. Preterm Premature Rupture of Membranes
2. Classical uterine incision scar
3. Placenta Previa
4. Unexplained Vaginal Bleeding

Reference: AWHONN Perinatal Nurisng, Simpson & Creehan, 2001.