

# APGO Basic Clinical Skills Curriculum



## Intrapartum Cervical Assessment



Association of Professors of Gynecology and Obstetrics (APGO)  
Undergraduate Medical Education Committee ©2008

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## **DESCRIPTION**

Cervical Assessment of the Laboring patient is a skill that is important for effective labor management, but may have limited opportunities for learning in the actual clinical setting. Thus, some medical students may not achieve competency prior to graduation. Assessing a learner's ability requires allowing them to perform actual digital exams on patients in the office or on labor and delivery, with an experienced practitioner confirming their exam. It is important to understand the changes that occur in the cervix and vagina during labor leading to delivery.

Skills training in cervical assessment requires prior knowledge of:

1. Female vaginal and cervical anatomy
2. Definitions of cervical dilation, effacement and fetal station
3. Technique for intrapartum cervical assessment
4. Indications, contraindications, benefits and risks of cervical assessments

## **INTENDED LEARNING OUTCOMES**

This clinical skills module provides a standardized framework for teaching learners how to assess the cervix in labor utilizing standardized cervical models. Following participation in this module, students should demonstrate the following learning outcomes:

1. Define cervical dilation
2. Define cervical effacement
3. Define how to assess fetal station
4. Understand how to identify the presenting part
5. Understand the normal female vaginal and pelvic anatomy
6. Review the indications, benefits, and risk of cervical assessments
7. Demonstrate accurate assessment of cervical dilation and effacement on standardized models

## BEST PRACTICES

Reliance upon clinical expertise as a gold standard for determining accuracy of cervical assessment skill is under investigation. Experienced clinicians accurately assessed dilation only about 50% of the time. Accuracy appears to decrease with advancing cervical dilation and may vary with the type of simulator model, with soft models providing a more realistic, but less accurate, examination simulation than hard models. Thus, learners may benefit from learning on firm models first.

We suggest that cervical model simulators be used to teach the initial clinical intrapartum vaginal exam. Below is a photograph of low resource clay models.



### CHECKLIST

The following checklist may be used as a component of a training session and/or as a component of a performance assessment.

	<b>DONE</b>	<b>NOT DONE</b>
Describe the benefits, risks, and indications for cervical assessment		
Describe the technique of properly assessing dilation, effacement, and station.		
Explain procedure to patient		
Put on gloves in a sterile fashion		
Use lubricant on two fingers that will be used to perform vaginal examination		
Use non-dominant hand to separate labia		
Use two fingers of the dominant hand to assess the cervix		
Assess presenting part		
Accurately assesses cervical dilation		
Accurately assesses cervical effacement		
Demonstrates appropriate sterile technique throughout examination		

## **PERFORMANCE ASSESSMENT**

The provided checklist can be used for performance assessment.

The instructor indicates that the student will be demonstrating proper cervical assessment technique. The instructor asks the student to discuss benefits and risks for intrapartum cervical assessment.

- Benefits: proper management of labor dysfunction.
- Risks: Increased incidence of intrauterine infections after ROM. Cervical assessment is specifically contraindicated in the case of a placenta previa.

The instructor asks the student to describe and then perform the steps in an intrapartum vaginal examination.

- The student indicates that he/she would thoroughly explain the procedure to the patient.
- The student indicates that he/she would assess the patient between contractions when she is most relaxed.
- The student puts on sterile gloves.
- The student indicates that he/she would use the non-dominant hand to separate the labia and the dominant hand to assess the cervix.
- The student lubricates the first two fingers of the dominant hand, demonstrating appropriate sterile technique throughout.
- The student assesses the presenting part.
- The student describes how to measure cervical dilatation.
- The student describes how to measure cervical effacement.
- The student describes how to assess fetal station.

The instructor asks the student to perform the vaginal exam. A cervical model, sterile gloves, and lubricating jelly should be available.

- The student should then proceed with all above described steps.

## PRACTICAL TIPS

Following completion of appropriate didactic or self-directed background learning, students should participate in a mentored hands-on practice session/lab. The practice session should include a demonstration of the following skills:

1. Measure finger width and length using the standardized scale
2. Perform practice assessments on unblinded and blinded cervical models

## RESOURCES

Models may be hand-made or purchased from commercial vendors. Some of the available models are listed below.

<b>Model Name</b>	<b>Manufacturer</b>	<b>Approximate cost</b>
Hand made sculpting clay	Any modeling clay and softballs	<\$50
Cervical effacement and dilatation model	Health Edco	\$120-566
Labor Stages model	3B Scientific	\$500
Cervical dilatation/Effacement Simulator	Life/Form	\$895

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1. Tuffnell DJ, Bryce F, Johnson N, Lilford RJ. Simulation of cervical changes in labour: reproducibility of expert assessment. *Lancet*. 1989 Nov 4;2(8671):1089-90.
  2. Phelps JY, Higby K, Smyth MH, Ward JA, Arredondo F, Mayer AR. Accuracy and intraobserver variability of simulated cervical dilatation measurements. *Am J Obstet Gynecol*. 1995 Sep;173(3 Pt 1):942-5.
  3. Phelps JY, Lambrou N, Roshanfekar D. Accuracy and intraobserver variability of simulated cervical dilatation and effacement measurements. *Prim Care Update Ob Gyns*. 1998 Jul 1;5(4):185.
  4. Huhn KA, Brost BC. Accuracy of simulated cervical dilation and effacement measurements among practitioners. *Am J Obstet Gynecol*. 2004 Nov;191(5):1797-9.