PATIENT CERVICAL LENGTH SCREENING FOR PRETERM BIRTH PREVENTION



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Few tests are available to predict which women will deliver their babies preterm. Most preterm births (PTBs) are spontaneous, occurring after the onset of preterm labor (uterine contractions and cervical dilation) or preterm rupture of the membranes. The risk of recurrent PTB in a woman who has had a prior PTB is high; in fact, spontaneous PTB in a previous pregnancy is the strongest risk factor for recurrent spontaneous PTB.

What is the role for transvaginal cervical length assessment in pregnancy?

Measurement of cervical length in the second trimester with transvaginal ultrasound is one of the best ways to assess the risk for spontaneous PTB. At 16 to 24 weeks of pregnancy, a cervical length less than 25 mm is considered "short"; the shorter the cervical length, the higher the risk of PTB. Importantly, women who previously delivered before term spontaneously and who have a short cervix in their current pregnancy are at the highest risk for PTB.

Should cervical length be evaluated by transabdominal or transvaginal ultrasound?

Cervical length can be measured with ultrasound either transabdominally (the ultrasound probe is placed on the mother's abdomen) or transvaginally (the ultrasound probe is inserted into the vagina next to the cervix). Transvaginal measurements are considered more accurate because they are more consistent (the numbers do not differ no matter who performs the scan) and they are unaffected by the mother's weight or the position of her cervix, and the fetus's position.

If my provider recommends cervical length assessment, when during pregnancy should it be performed?

If your provider recommends measuring your cervix, it should *not* be measured prior to 16 weeks' gestation because the lower part of your uterus will still be thick, making it difficult to judge the length of cervix. Assessing cervical length after 24 weeks' gestation is also not rec-

ommended because treatments for women with a short cervix have only been studied in women diagnosed with a short cervix *before* 24 weeks. Therefore, the ideal time for ultrasound evaluation of the cervix, if your provider recommends it, is between 16 and 24 weeks' gestation.

How should the approach to cervical length screening differ if I had a previous spontaneous PTB?

The approach to cervical length screening varies based on your history and risk factors. The American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine (SMFM) recommend that all women with a prior spontaneous PTB have cervical length screening with transvaginal ultrasound every 1 to 2 weeks beginning at 16 weeks and continuing until 24 weeks' gestation. For women without a history of PTB, ACOG and SMFM recommend considering transvaginal cervical length screening, but it is not mandatory. Therefore, it is reasonable to perform measure cervical length with ultrasound once, either transabdominally or transvaginally, at the time of your routine anatomy if you do not have symptoms of preterm labor or a history of delivering prematurely.

More cervical length measurement can be considered *only if* significant changes in your pregnancy occur that suggest you are at increased risk for preterm delivery (eg, uterine contractions or vaginal bleeding).

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OTHER SPECIAL SITUATIONS

Should I have cervical length evaluations if I have had treatment for cervical dysplasia?

Treatment for cervical dysplasia (loop electrical excision procedure, LEEP, cold knife cone) can increase the risk for PTB in a future pregnancy, but there is limited evidence to support cervical length evaluation in this case. Therefore, if you are otherwise at low risk for PTB, more than 1 measurement, done at the time of routine anatomy ultrasound, is not recommended.

Is there a need for measurement of cervical length if I have had a cerclage placed in the current pregnancy?

There is no need for ongoing cervical length measurement after a cerclage is placed.

Is cervical length screening recommended if I am having twins or triplets?

Women with multiple gestations have shorter cervixes than those with singleton gestations. A short cervix in twins is associated with an increased risk of PTB, but studies evaluating treatment for a short cervix in twins and other multiple gestations are limited. Moreover, no treatment has been shown to decrease the risk of PTB or improve neonatal outcomes in women carrying twins who have short cervixes. For that reason, if you are pregnant with twins or triplets, routine cervical length screening is not currently recommended.

What if I have a twin pregnancy and a short cervix is found?

Women with multiple gestations are often found to have a short cervix on routine ultrasounds in pregnancy that are not done to measure cervical length. Unfortunately, no effective treatments have been clearly shown to improve outcomes in these cases. Thus, if you have a multiple gestation and are found to have a short cervix, there are no clearly effective interventions to prevent PTB.

Is cervical length assessment helpful in other pregnancy complications?

THREATENED PRETERM LABOR

Preterm labor is diagnosed when uterine contractions and cervical dilation occur before 37 weeks' gestation. If you have symptoms of threatened preterm labor such as uterine contractions, your provider may consider measuring your cervix to assess your risk for an early delivery, in addition to routine digital cervical assessment. The information obtained by assessing your cervical length transvaginally may help your provider determine the best management course. In some cases, your provider may also use the measurement together with another test for PTB known as cervico-vaginal fetal fibronectin (FFN).

PRETERM PREMATURE RUPTURE OF MEMBRANES (PPROM)

Preterm premature rupture of membranes (PPROM) is when the amniotic membranes rupture before 37 weeks' gestation. Measuring cervical length after PPROM appears to be safe, and a short cervix has been associated with a shorter time from membrane rupture to delivery. However, because cervical length assessments will generally not alter clinical care, cervical length screening is not recommended if your pregnancy is complicated by PPROM.

PLACENTA PREVIA

Placenta previa is when the placenta implants over the cervix. Placenta previa carries an increased risk for bleeding during pregnancy, but there is no evidence that cervical length assessments alter pregnancy outcomes in these cases. Thus, cervical length assessment is not recommended if you have been diagnosed with placenta previa, unless you also had a prior spontaneous PTB.

