

Ultrasound measurement of the length of the cervix

Measurement of the length of the cervix in mid-pregnancy is one of the best predictors for preterm delivery.

Between 16 and 26 weeks of pregnancy, a shortened cervix is strongly associated with preterm birth and a long cervix is associated with a term birth.

When measured earlier than 16 weeks and later than 26 weeks, length of the cervix is much less predictive.

In November 2014, the Western Australian Preterm Birth Prevention Initiative recommended that the length of the cervix be included as a standard measurement at all mid-pregnancy scans.

All pregnant women in WA are offered a standard mid-trimester fetal anatomy scan, typically at 18-20 weeks of pregnancy, and it is at this scan that the measurement should be done.

This recommendation applies to all pregnancies, regardless of whether the pregnant woman is at low or high risk of preterm birth.

There are two ways to measure the length of the cervix using ultrasound: either as part of the usual trans-abdominal scan or by the additional use of a special trans-vaginal (internal) approach.

When using the standard trans-abdominal approach, measuring the cervix is relatively quick and straightforward.

However, imaging through the abdomen is best done with a full bladder and the stretching effect of the full bladder may provide a misleading elongation of the length of the cervix.

The full bladder, however, cannot stretch the cervix more than 10mm.

Trans-vaginal scanning is performed with an empty bladder and provides a measure of the true length of the cervix.

A length of more than 25mm is considered normal and any length less than 25mm warrants further investigation or treatment.

Not all women need to have an internal (trans-vaginal) scan performed at the time of their routine mid-pregnancy scan.

Women at low-risk of preterm birth and women with a suitably long cervix on trans-abdominal scan need no further testing.

The trans-vaginal approach is usually required for women at increased risk of preterm birth (typically those women with a previous history of a preterm baby, surgery on the cervix, or pregnancy loss).

An internal scan is also required for those cases in which the cervix cannot be imaged clearly on trans-abdominal scanning, even in low-risk women.

Other features of the cervix are important as well.

These features include the shape of the cervix and the rate at which it shortens in high-risk cases in which serial measurements are taken over a period of weeks.

It is important to note that shortening of the cervix does not generally cause any symptoms, leaving ultrasound examination as the only means by which it can be measured with any degree of accuracy.

Appropriate measurement of the length of the cervix requires adherence to rigorous standards.

The Western Australian Preterm Prevention Initiative is encouraging all sonographers in the state to undertake appropriate training and credentialing procedures and provides support for practitioners if required.

It is the right of all women to know the length of their cervix at the time of their mid-pregnancy scan.

The length of the cervix below which action is required is 35mm when measured by a trans-abdominal scan and 25mm when measured by a trans-vaginal scan.

When the cervix is less than 35mm on a trans-abdominal scan, the next step is a trans-vaginal measurement.

If the cervix is less than 25mm on a trans-vaginal scan then your doctor needs to become involved, and in most cases, natural vaginal progesterone treatment will then be prescribed.



Treatment of a shortened cervix in mid-pregnancy

We now have an effective treatment for women with a shortened cervix in mid-pregnancy.

When given for this indication, natural vaginal progesterone halves the risk of subsequent preterm birth.

This treatment is simple and believed to be entirely safe.

It requires insertion of a small pessary into the vagina each evening as the woman goes to bed.

Most women have no symptoms, although a small number will have itching, usually due to thrush, which can be easily treated.

Progesterone treatment is commenced immediately if the cervix is found to be shortened in mid-pregnancy and is continued until 36 weeks of pregnancy.

Progesterone treatment is also used in some cases of previous preterm birth, regardless of the length of the cervix.

In cases in which the cervix continues to shorten despite treatment, or if the cervix is found to be very short, a surgical procedure called cerclage is sometimes performed.

This procedure effectively closes the cervix but the decision to perform this procedure can be complex and requires specialist input.



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