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by PATRICK S RAMSEY, MD, MSPH, AND DENA GOFFMAN, MD

Vasa previa is a pregnancy complication in which blood vessels from the umbilical cord lie over the cervix, an area that the baby passes through during delivery. These vessels may travel through the membranes (or amniotic sac) around the baby rather than going directly into the placenta. When unprotected blood vessels lie over the cervix, there can be serious risks to the baby. The main risk is that the vessels may tear and cause the baby to bleed.

## Q What are the concerns with vasa previa?

Vasa previa can cause serious problems. The baby can receive less blood and oxygen if the blood vessels in the membranes are under pressure. In addition, when the membranes rupture (ie when the water breaks) the baby's blood vessel in the membranes can tear, resulting in bleeding. This can lead to severe blood loss, anemia (low blood count), and/or death of the baby. With early detection and careful management, the risk of pregnancy loss is less than 5%. If the abnormal blood vessels are not diagnosed until after delivery, the risk of losing the baby can be greater than 50%.

## Q Who is at risk for vasa previa?

Women whose pregnancies are complicated by conditions called velamentous cord insertion and succenturiate placenta are at increased risk for vasa previa. However, even with either of these conditions, the risk of vasa previa is low. A placenta previa (placenta lying over the cervix) also increases the risk of vasa previa. If you have a placenta previa or a low-lying placenta (a placenta close to the cervix), your doctor may recommend additional ultrasound tests, including a vaginal ultrasound in the second or third trimester. Women who have had in vitro fertilization, twins or other multiple pregnancies (triplets, quadruplets, etc) also have an increased risk of vasa previa.

## Q How is vasa previa diagnosed?

Ultrasound is the primary way that vasa previa is detected before delivery. Vasa previa is diagnosed if a fetal blood vessel is seen over or immediately adjacent to the cervix. Diagnosis is usually made at the time of routine ultrasound in the middle of pregnancy because detection later in pregnancy can be limited. In about 20% of cases when vasa previa is suspected earlier in pregnancy, it may resolve. Follow-up ultrasound assessments of the vasa

previa as the pregnancy progresses are recommended and may be helpful in providing the best outcome.

## Q How should a pregnancy with vasa previa be managed?

For women with vasa previa, the goal is to prolong pregnancy as safely as possible while avoiding complications that can result when membranes rupture or labor occurs. Pelvic rest is often suggested. That means that nothing should be placed in the vagina and intercourse should be avoided. Your doctor may recommend that you receive steroids at some point to help the baby, in the event that early delivery is needed. In some cases, admission to the hospital may be recommended for close monitoring and expedited delivery, if needed. Your provider will individualize your management plan based on your risk factors, ultrasound findings, and other factors.

## Q How and when should your baby be delivered if you have vasa previa?

If you have been diagnosed with vasa previa, you should have a planned cesarean birth at a hospital that is capable of caring for your baby and providing immediate blood transfusion in the event that complications occur. During the birth, your doctor may adjust the type of incision on your uterus depending on where the placenta and blood vessels are located. During the surgery, if one of the blood vessels is torn, your doctor will clamp the cord quickly to help minimize blood loss from your baby.

When planning a cesarean birth, the goal is to balance the risks of early delivery against the risk of labor or rupture of membranes and potential tearing of the vessels. Studies suggest that when vasa previa is diagnosed before delivery and early delivery is performed, survival rates for the baby are greater than 90%. Experts believe that planned cesarean birth between 34 and 37 weeks of pregnancy provides the best outcome.

## Summary

Vasa previa is not preventable, but it can often be diagnosed and managed carefully to provide a good outcome. If you are diagnosed with vasa previa, your doctor will help determine the best care plan for you and your baby. With recognition before delivery and close surveillance, survival rates for pregnancies with known vasa previa are generally high.