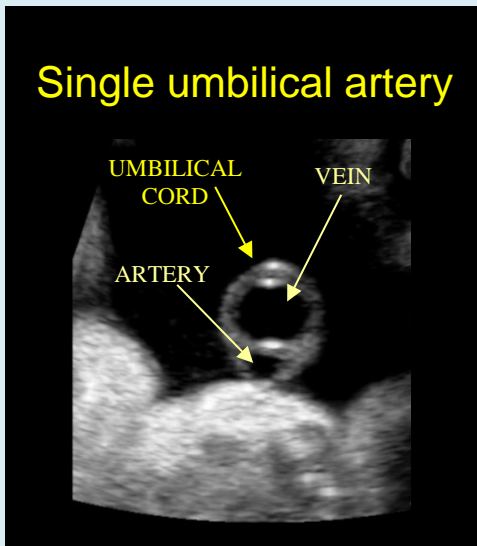


Single Umbilical Artery (SUA)

During a second trimester ultrasound, the umbilical cord is routinely examined. The umbilical cord connects the developing baby to the placenta. Usually there are three blood vessels in the umbilical cord: one vein (which carries oxygen and nutrients from mom to baby) and two arteries (which move fetal waste from the baby to mom). Sometimes there are only two blood vessels, one vein and one artery, instead of the usual three. This ultrasound finding is called a two-vessel cord but may also be called a single umbilical artery (SUA) because one of the two arteries is absent. This common ultrasound finding is seen in about 1 out of every 100 pregnancies (~1%). Usually, the SUA has no effect on the health of the baby, especially when there are no other findings on the ultrasound.



How does SUA happen?

No one knows for sure why this happens in some babies and not others. It is thought that one artery may simply stop growing as it develops or the very early umbilical artery does not split into two separate arteries the way it should.

What are the risk factors for SUA?

A single umbilical artery can happen in any pregnancy, but there are risk factors that make it more likely:

- Multiple gestation (twins, triplets, etc.)
- White (Caucasian) ancestry
- Female fetus
- Mothers over 40
- Maternal diabetes or high blood pressure
- Maternal smoking

However, SUA can happen even when no risk factors are present.

Can SUA cause problems for the baby?

One umbilical artery is usually enough to maintain a healthy pregnancy, but there are some concerns when SUA is seen.

Birth Defects: Studies have found that there is a higher chance for other birth defects in a baby with SUA. This can include heart defects, kidney problems, spine defects, and other less common birth defects. Many of these birth defects can be seen by ultrasound, but not all birth defects can be found during pregnancy.

Pregnancy complications: Another concern with SUA is a possible chance for problems later in pregnancy, like slow fetal growth, preterm delivery, or stillbirth. However, not all studies agree that there is a higher risk for pregnancy complications. Your OB provider will routinely monitor the growth of the baby.

Can an SUA go away?

An SUA is not expected to go away before delivery. The umbilical blood vessels form very early in pregnancy. That means a “missing” artery will not develop later in pregnancy.

Are any additional tests needed?

An SUA is usually seen during a routine ultrasound. A targeted (level II) ultrasound may be offered to look carefully at the developing baby and check for other ultrasound findings. Other testing, such as amniocentesis, may be discussed if there are other ultrasound findings.

If there are concerns that the baby seems smaller than expected, an ultrasound may be done in the last few months of pregnancy to check the baby’s growth.

What does “isolated” SUA mean?

An SUA is considered “isolated” when a targeted ultrasound does not identify any other ultrasound findings. That means the rest of the ultrasound exam is normal for this time in pregnancy. While it is impossible to be completely certain that no other birth defects are present, most pregnancies with an isolated SUA result in a healthy baby.

Where can I get more information?

You can speak with your OB provider or a genetic counselor if you have additional questions about this ultrasound finding.

Kaiser Genetics Departments

<u>Fresno</u>	(559) 324-5330
<u>Modesto</u>	(866) 916-4075
<u>Oakland</u>	(510) 752-6298
<u>Sacramento</u>	(916) 614-4075
<u>San Francisco</u>	(415) 833-2998
<u>San Jose</u>	(408) 972-3300