Your kidneys are two organs that are located on either side of your spine. They filter your blood and remove waste products, which then becomes urine. At the center of everyone’s kidney is a small collection of fluid, which is where the urine is found before it drains down to your bladder. This is called the renal pelvis. Everyone, including fetuses, has some amount of fluid in this area of the kidney. For all points in pregnancy, there are values for how large this renal pelvis can be. Some fetuses have a little extra urine in this location, which then measures a bit larger than expected by ultrasound. This is called renal pyelectasis. Renal pyelectasis is extremely common in male fetuses. Other things to understand about renal pyelectasis:

1- It will resolve by 26-30 weeks in the majority of fetuses in which it is seen at the time of a detailed ultrasound. We usually recommend a follow up study at this point in pregnancy just to make sure.

2- In a small percentage of fetuses, it can be an early indicator of either incomplete emptying of the kidney, or ‘reflux’, which means that the urine backs up to the kidneys as the fetus is emptying it’s bladder. This is something that newborns and children commonly have and grow out of, but it is important to know about as your pediatrician will want to follow your baby. Children who have this are can be risk for recurrent infection of the kidneys if it is not followed. This is not something you should be overly concerned about, but is a reason to make sure that the fetus has either resolved it’s pyelectasis, or is followed after delivery.

3- As we do with all ultrasounds, we look at all aspects of the fetus that contribute to overall risk of abnormalities and genetic disorders like Down syndrome. If the baby has renal pyelectasis alone, but no other concerns after careful examination, the risk of Down syndrome is essentially unchanged. Since most fetuses are already at very low risk, they will remain low risk even with pyelectasis. However, it is a reason to make sure that the fetus is evaluated in detail to exclude any other concerns.

4- As with any other ultrasound finding, we will correlate your personal risks, screening test results and any other ultrasound concerns to come up with the best risk of Down syndrome in your fetus.

If you have any other questions about renal pyelectasis, our physicians can be reached to discuss this further.