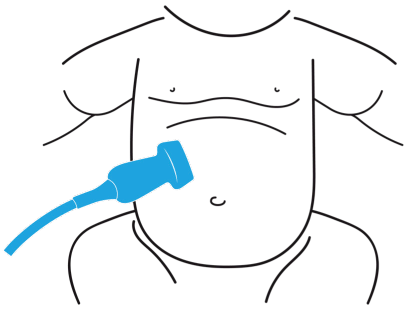
Gastrointestinal applications

DIAGNOSING PYLORIC STENOSIS

Pyloric stenosis is a common diagnostic consideration in neonates with vomiting. Ultrasound is the test of choice to make the diagnosis: it allows direct visualization of the pylorus and can differentiate stenosis from pylorospasm. It does not require radiation, and is faster and more comfortable than other forms of imaging. It is also nearly 100% sensitive.

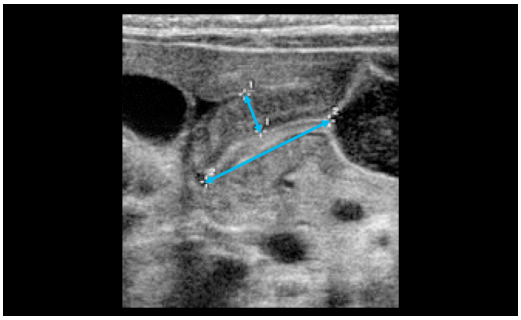
Technique

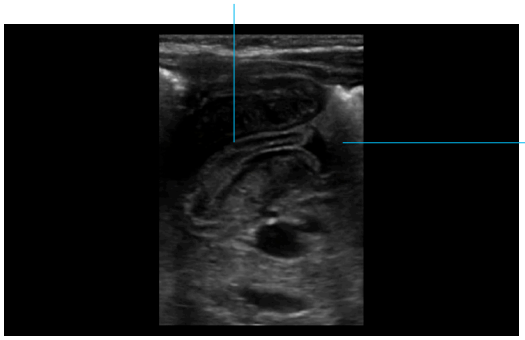
Use a high frequency linear transducer. In a long-axis orientation, scan medial to the gall bladder. The stomach will be anterior to the aorta and should appear fluid filled and distended, particularly if the pylorus is stenotic and impairing gastric emptying. Consider putting the baby in the right lateral decubitus position to scan.



Anatomy

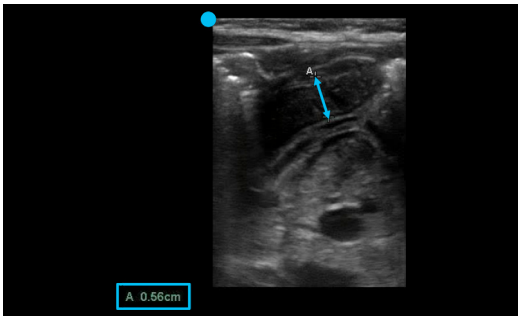
After identifying the pylorus muscle, measure the length and width of the pylorus.





Pyloric stenosis

A pyloric width > 3 mm or pyloric length > 14 mm are consistent with pyloric stenosis. To differentiate pyloric stenosis from pylorospasm, have the child feed, and watch for passage of fluid through the pylorus. If stenosis is present, fluid will not pass through the pylorus.



Pyloric width > 3 cm