Overview
A percutaneous transhepatic cholangiogram, or PTCA, is a special X-ray test used to look at the bile ducts. The bile ducts allow the liver and gallbladder to secrete digestive fluid into the intestines. The pancreatic duct can also be seen and evaluated for disease.

Who is a candidate for the test?
A PTCA is usually ordered when a healthcare provider suspects a condition that affects the bile ducts, such as biliary obstruction, or blockage.

How is the test performed?
An intravenous line, or IV, is usually placed into a vein in the arm before the procedure. Antibiotics, sedatives, and pain medications may be given through the IV. The examiner will then clean the skin over the liver, and inject a local anesthetic into the skin to numb it. A thin needle is then inserted into the liver. The examiner watches the needle with a special X-ray machine. Small amounts of a contrast agent are injected through the needle. A special catheter is inserted into the liver once the needle is in the right spot. More contrast agent is then injected to highlight the bile and pancreatic ducts. X-ray pictures are taken of the bile ducts while they are filled with the contrast agent. If a blockage is seen, a special tube known as a stent may be inserted to bypass the blockage. If the blockage cannot be opened with a stent, the provider may leave a small drain tube in the ducts to drain bile to a bag outside the body. When the test is over, the person goes to a recovery area until the sedative wears off. The person may be allowed to go home later the same day if they are otherwise well.

What is involved in preparation for the test?
A woman who is pregnant, or suspects she is pregnant, should tell the healthcare provider. This test can expose the fetus to radiation. Any allergies to iodine should be mentioned, since the contrast agent is iodine based. Nothing should be taken in by mouth for 8 hours before the test. The healthcare provider will let a person know if other preparations are needed.

What do the test results mean?
A PTCA may reveal a blockage, known as a biliary obstruction, or other abnormality in the ducts. A blockage could be due to a gallstone, inflammation, or a tumor.