

Galactography (Ductography)

- ***What is Galactography (Ductography)?***
- ***What are some common uses of the Galactography?***
- ***How should I prepare for my Galactography procedure?***
- ***What does the equipment used for Galactography look like?***
- ***How does Galactography work?***
- ***How is Galactography performed?***
- ***What will I experience during my Galactography procedure?***
- ***What are the benefits vs. risks of Galactography?***
- ***What are the limitations of Galactography?***

What is Galactography?

The breast is composed primarily of three structures: fat, lobules (that make the milk) and milk ducts (that carry the milk from the lobule to the nipple). Mammography and breast MRI (magnetic resonance imaging) are excellent methods to image the breast; however, they do not visualize the inside of the ducts. Galactography is a method that uses both mammography and injection of contrast material into the milk ducts to obtain a picture of the inside of the milk ducts in the breast. This information can occasionally be obtained with ultrasound.

What are some common uses of the Galactography?

The most common use of galactography is to evaluate a woman who has a discharge from one nipple of the breast, usually bloody or clear, who has had an otherwise normal mammogram.

In women with the following conditions, galactography is typically NOT called for:

- A discharge that is milky, yellow, green, black or gray is usually not a cause for concern, especially if it comes from multiple ducts in the breast.
- A discharge that is from both breasts in a woman who has not had children may indicate a side effect from a drug, or may be related to a pituitary problem located in the brain.

- A minimal milky discharge from both breasts in a woman who has had children is not unusual, and only rarely is a cause for concern.

How should I prepare for my Galactography procedure?

Little preparation is necessary for this procedure. The only requirement is that the nipple not be squeezed prior to the exam, as sometimes there is only a small amount of fluid, and it is necessary to see where that fluid is coming from to perform the exam. As in mammography, deodorant or antiperspirant should not be used.

What does the equipment used for Galactography look like?

The equipment used is a mammogram machine (the same that is used to take a mammogram), dilators (small wires, optional) and a small catheter (tube) or blunt-tipped needle that is inserted into the milk duct in the nipple to inject a tiny amount of contrast.

How does Galactography work?

A small amount of contrast material is injected into the milk duct, and a mammogram is obtained. This gives an image that allows the inside of the milk duct to be seen.

If there is a filling defect (black area) in the milk duct, it often indicates a small tumor. Most of these are papillomas, which are non-cancerous tumors of the milk ducts. They may be pre-cancerous, and usually are removed. Less than 10 percent of filling defects will be cancer.

The galactogram will not only find the small tumor, but will also show where it is located in the breast, to help the surgeon find the area.

In some cases, there are no filling defects. Rather, the ducts lead to cysts in the breast, a sign of fibrocystic change. These cysts may cause a bloody discharge, but generally are not worrisome. The test is not perfect. It may appear normal when a tumor is actually present.

How is Galactography performed?

Prior to the procedure, the radiology staff will set up sterile materials, including a syringe, dilators, a small catheter (tube) or blunt-tipped needle, sponges, and cleansing materials.

The patient is seated or placed on her back with the breast exposed. The nipple is cleansed, and a tiny amount of fluid is squeezed from the nipple to identify the duct with the discharge. The milk duct may be dilated with tiny dilators to permit a small catheter (tube) or blunt-tipped needle to be inserted into the milk duct. Occasionally a warm towel will be placed on the breast to help the milk duct become more visible, and to allow the dilators, catheter and/or blunt tipped needle to enter the milk duct more easily. A small amount of contrast is then injected, and a mammogram is obtained. A second injection and mammogram may be performed if necessary.

What will I experience during my Galactography procedure?

The procedure normally takes between 30 minutes and an hour. You will be awake during the procedure. The dilation of the milk duct can sometimes be uncomfortable; however it is usually not painful. The nipple may be squeezed to identify the milk duct with the discharge.

What are the benefits vs. risks of Galactography?

Benefits

- Small cancerous and non-cancerous tumors in the milk ducts that cannot be identified in any other way are found and can be removed at an early stage.
- The small tumors are localized in the breast to allow the surgeon to locate them.
- If no tumor is found, it is not likely that the discharge is worrisome.

Risks

- It is possible to injure the duct, either during the process of placing the catheter into the duct, or while injecting contrast material to identify the duct. This almost always heals by itself.
- It is possible to miss the area of concern, or to put the catheter into the incorrect duct, potentially delaying diagnosis.

What are the limitations of Galactography?

If there is no discharge at the time of the exam, the duct cannot be identified, so the test cannot be performed. In addition, some ducts are quite small, and may not be able to be dilated. If the incorrect duct is injected, an incorrect diagnosis can be made.