



Ocular Ultrasonography

Looking into the eye to examine the retina and macula is similar to standing outside a house and looking through a small window to see a painting on the far wall inside a room. Most of the time, through a dilated pupil, this can be easily done; however, sometimes it can be difficult for the doctor to see the back of the eye. In the example above, a severe cataract (clouding of the lens of the eye) would be like trying to look into the room through a very dirty window. Also, blood or inflammation filling the vitreous block the doctor's view as well (like looking into the room through the window in the example above, only the inside of the room is filled with smoke, making the far wall difficult or impossible to see). In such cases, ultrasound of the eye is helpful. Ultrasound uses sound waves to obtain images of tissues when we cannot look inside. The image is not as good as actually seeing the retina, but it can be helpful in diagnosing certain conditions, such as a retinal detachment or a tumor inside the eye. Ultrasound can be quite helpful, particularly when the view is limited.

What to Expect

Ocular ultrasonography is rapid, painless, and non-invasive. It is very similar to ultrasounds performed on other parts of the body. You will be seated comfortably and asked to close your eyes (the eyelids do not have to be open for this test). Then the doctor will gently apply a probe covered with cold, sterile gel solution over the eyelid and take scans of the eye. The entire process takes only a few minutes. Your doctor will review the results with you in the examination room.