

# Ultrasound/Sonography - Details

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## Exam Details - Ultrasound/Sonography

Available at:

DC, Chevy Chase, Bethesda, Fairfax, and Sterling

### Used To:

- View internal masses or tissues to determine diagnosis or clinical need

### Why:

- Used to determine shape, texture, and composition of tumors and cysts
- May also determine whether abnormal lumps found in mammography exams are cystic or solid
- Widely used for obstetrics measurements to determine the age and size of fetus as well as detect any fetal abnormalities (pregnancy)

### How:

- Uses reflected sound echos to study and characterize internal organ tissues
- Transducer is a device that emits sound waves and receives their echos when it is placed in contact with the skin
- Various transducers put out different strengths and angles of sound waves
- The echos are reflected from internal organs back to the transducer
- A computer produces sectional images

### Doppler:

- Doppler : Blood Flow through Vessels
- Doppler imaging visualizes blood flowing through vessels such as kidney, liver, heart, and extremities

### 3D or 4D Ultrasound:

- All of WR's ultrasound units have 3D or 4D capabilities
- This is the highest level of available technology which allows images to be captured in three dimensions and with real-time movement
- 3D/4D utilities provide greater clarity to the physicians and technologists in more complex cases where finer detail is needed for a diagnosis

Machine:



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