

# ONE-VISIT INFERTILITY WORKUP

## A Protocol for 3D Ultrasound Assessment



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The availability of 3D ultrasound has greatly improved our diagnostic capability and enabled an expeditious and thorough evaluation of infertility patients during the first visit. With a simple volume acquisition of the uterus and ovaries, then subsequent image reconstruction and postprocessing, significant information can be obtained about possible factors affecting fertility.

### Initial Telemedicine Consultation



- Patient history completed
- Explanation of clinic visit and diagnostic process



Clinic visit  
scheduled on  
**day 7-10** of  
menstrual cycle



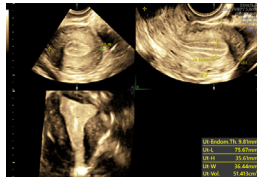
### 3D US with Comprehensive Pelvic Exam

- 3D assessment of uterus
- 3D antral follicle count (AFC)
- 3D sonohysterogram/virtual hysteroscopy HyCoSy

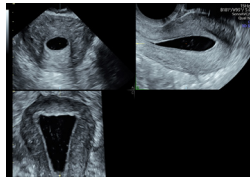
*Semen analysis and blood tests as needed*

## ASSESSMENT OF THE UTERUS: 3D ULTRASOUND AND SONOHYSTEROGRAM

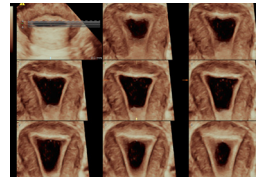
Views obtained from a single volume acquisition demonstrate information equivalent to MRI or a CT scan. The details of the uterine cavity are enhanced by advanced, easy to use 3D rendering techniques.



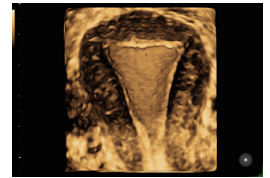
3D Multiplanar Reconstruction



Saline Infusion Sonohysterogram



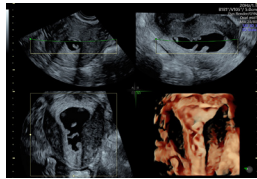
Tomographic Ultrasound Imaging



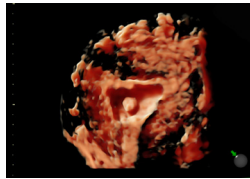
Virtual Hysteroscopy

## UTERINE PATHOLOGY OR ABNORMALITIES

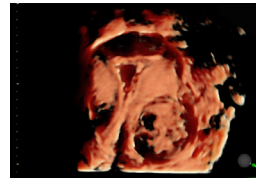
By performing a sonohysterogram on the same day, we are able to do a thorough assessment of the uterine cavity. Saline solution is used to distend the uterine cavity and a volume acquired.



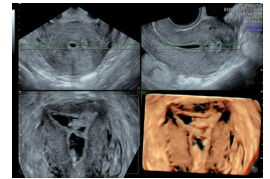
Sonohysterogram (SHG) - polyp



HDlive™ SHG - polyp



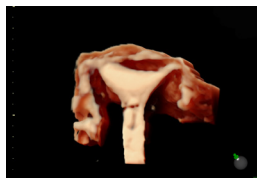
HDlive SHG - myoma



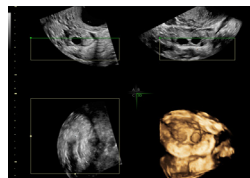
SHG - Asherman's syndrome

## ASSESSMENT OF FALLOPIAN TUBES

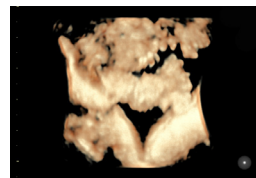
After evaluating the uterine cavity, a sonosalpingogram is done to assess the fallopian tubes, using either a saline solution mixed with air or ExEm® Foam.



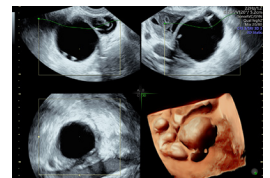
HDlive normal tubes after HyFoSy with ExEm foam



Tortuous fallopian tube adhered to ovary



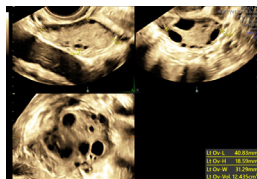
Air, saline sonosalpingogram of tortuous fallopian tube



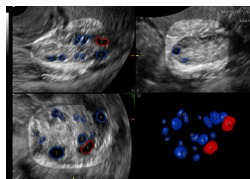
Sonosalpingogram of hydrosalpinx

## ASSESSMENT OF OVARIES

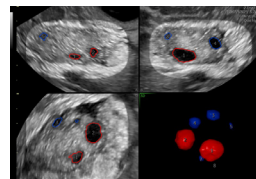
During the initial visit it is important to evaluate ovarian reserve. In our center we use 3D ultrasound with the addition of the SonoAVC™ antral tool to easily and efficiently assess ovarian reserve.



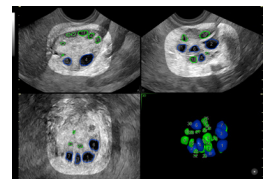
Volume Contrast Imaging



Normal ovarian reserve

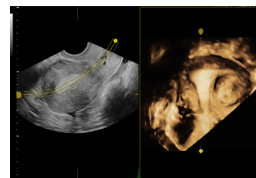


Poor ovarian reserve

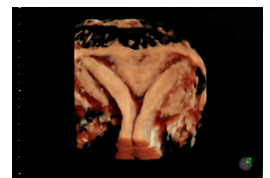


Polycystic ovaries

A high percentage of infertile women have uterine, ovarian or tubal abnormalities or pathology which can easily be diagnosed by ultrasound. The addition of 3D with advanced rendering techniques can provide more diagnostic information and greater detail. This enables us to have all the data available to plan for next steps and develop a plan of action for our patients after their initial visit. Patients have found this comfortable and convenient.



Uterine Trace provides coronal plane in a few easy steps



HDlive uterine didelphys





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September 2021 JB16866XX

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demonstrating the **one-visit**  
**infertility protocol**

