

### Introduction

Ultrasound is high frequency sound wave, too high for human ear to hear. It can pass through the skin and tissues without being felt or heard.

Ultrasound examinations use these high frequency sound waves to produce images of tissues in the body. Ultrasound examinations can help doctors detect many diseases. Ultrasonography of the gallbladder may show stones. An image of the breast, thyroid, liver, kidney, or pancreas may show masses. Ultrasonography of major blood vessels can detect vessel disease or clots.

Ultrasound examination of pregnant mother can help doctor to assess the condition of the baby inside the womb. Under normal clinical practice ultrasound examination is painless and harmless to our body.

### The Operation / Procedure

1. Patient will lie on a padded couch, the radiological staff will apply gel to the skin over the area to be studied.
2. A hand-held transducer will be moved over the gel on the skin. Ultrasound waves do not travel well through air, and the gel is used to prevent air from interfering with the ultrasound waves.
3. Patient may be asked to lie still, and perhaps to hold breath, so that clear ultrasound images can be obtained.
4. Multiple ultrasound images will be taken during examination for record.
5. An ultrasound examination takes 20 to 30 minutes to complete and may take longer for difficult examination.

### Before the Operation / Procedure

1. Fasting for 6 hours is required before ultrasound examination of the liver and gallbladder. For diabetic patient on drug, consult clinician concerned for the adjustment of dosage.
2. For some examination, patient may be required to drink several glasses of water beforehand so that your bladder is full during ultrasonography.
3. Wear loose and comfortable clothing, or change into an examination gown. Patients will need to uncover the skin over the area to be examined.

### After the Operation / Procedure

Eat or drink as usual, and back to regular activities after the examination.

### Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

### Reference

Smart Patient Website by Hospital Authority: Ultrasound (2004)