

Ultrasound pictures of the body Human ears respond to sound in the frequency range of about 20–20000 Hz, although many animals can produce and hear sounds of considerably higher frequencies. To obtain diagnostic information about the depth of structures in the body, we send pulses of ultrasound into the body and measure the time required to receive the reflected sound (echoes) from the various surfaces in it. This procedure is called the A Scan method of ultrasound diagnosis. For example, bats emit blips of ultrasonic frequencies (30 to 100 kHz) and navigate by listening to the echoes. It was discovered during World War II that man can use ultrasound in much the same way bats can, The navy developed sonar (Sound Navigation and Ranging). The time required for the sound pulses to be reflected gives information on the distance to the various structures or organs in the path of the ultrasound beam. This gives a good coupling at the skin and greatly increases the transmission of the ultrasound into the body and of the echoes back to the detector. a method of locating under water objects, such as submarines, .with ultrasound echoes. Ultrasound generators are often simply referred to as transducers