

Brain ultrasound bubble study

Brain ultrasound bubble study is used for examining the presence of an atrial septal defect by studying the blood flow entering and exiting the brain. This is a safe and painless test. A special cap equipped with ultrasound transducers is placed on the patient's head for the study, and ultrasound transducers are fitted to the temple area. The cap is strongly fixed close to the head.

High-frequency sound waves are used in the study, which reflect back from blood vessels, and these are used to display an image of blood flow on the computer screen, together with sound, if necessary. If blood flow has been identified on the computer screen, an intravenous cannula will be inserted into your peripheral blood vessel through which, a solution prepared from 9 ml of saline solution and 1 ml of air will be administered. The solution that is administered into the blood vessel contains extremely fine bubbles; during injection, the patient is asked to breathe in deeply, hold their breath and then exhale as much as possible.

The result of the test is positive regarding an atrial septal defect, if single or grouped bubbles can be evaluated in the blood stream of the brain displayed on the computer screen. The study is generally performed on younger people to evaluate the possibility of paradoxical blood flow in assessing the risk of recurrent stroke or in case of a migraine with aura, to plan for further treatment.