Abstract:

Procedures involving ultrasound have expanded into many areas of medicine, including Anaesthesia. A good understanding of ultrasound and its benefits and limitations is therefore essential to anaesthetic practice. This article outlines the fundamentals of ultrasound and how it is generated. Images obtained through ultrasound are often subject to artefact; the common artefacts encountered in clinical practice and difficulties imaging certain tissues are explained. Various imaging modes including Doppler ultrasound and their uses are also described. Although largely a safe and widely used technique, the potential safety concerns and hazards resulting from the effects of ultrasound waves on body tissues are discussed.

Reference:

Patey SJ and Corcoran JP. Physics of ultrasound. Anaesthesia & Intensive Care Medicine, 2020 Dec 6: Volume 22, Issue 1, 58 – 63. https://doi.org/10.1016/j.mpaic.2020.11.012