



WORK INSTRUCTION FOR USE OF ULTRASOUND / SONICATION

THEME: Work instruction
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Ultrasound is sound with a frequency above 20 000 Hz. You do not hear ultrasound, but hearing can still be damaged.

PURCHASE

- Contact the purchasing manager of the unit or research group.

USE

- Warning signs should be used and clearly mark when the ultrasound / sonication takes place.

PROTECTION

- Always wear [hearing protection](#).
- Use hearing protection that meets the requirements.

GENERAL

Ultrasound is acoustic oscillations with a frequency above 20,000 Hz and is among other things used to homogenizing tissue / solutions (sonication). Ultrasound spreads through gaseous, liquid and solid substances.

Measuring such waves requires special measuring apparatus. Typical noise meter does not register these high frequencies. Both the intensity (decibels) and duration determines how harmful unshielded use of ultrasound is and it is therefore essential to use ear protection and notify when using ultrasound.

PREGNANT

The sonication / ultrasound exposure is high frequency. The fetal hearing organ may perceive sound from week 24-26, and after this, noise can in principle damage the fetal hearing. But this is only under very strong influence and especially low frequency noise (<500 Hz) is the main problem. High-frequency sound will be greatly attenuated through abdominal wall and amniotic fluid. There is therefore no reason to discourage pregnant women from working with sonication. This also applies if you stay in rooms where sonication takes place.