

ULTRASONIC SENSORS

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Abstract. Ultrasound a research of the human body using ultrasound waves. Echo signals enter the amplifier and special reconstruction systems, while generating radiation all the way that does not cause harm for a short time, but can cause problems with fairly long and close contact with the device. Therefore, we will talk about the rules for working with an ultrasound machine.

Keywords: ultrasound, labor protection, occupational Safety and Health, ultrasonic waves.

Анотація. УЗД або ультразвукове дослідження - це дослідження організму людини за допомогою ультразвукових хвиль. Ехосигнали надходять в підсилювач і спеціальні системи реконструкції, при цьому на всьому шляху генеруючи випромінювання, які не несуть шкоди при короточасному знаходженні поряд, але можуть викликати проблеми при досить боргом і тісному контакті з апаратом. Тому ми поговоримо про правила роботи з УЗД апаратом.

Ключові слова: УЗД, охорона праці, ультразвукові хвилі.

Introduction. The work of people in the offices of UZD is in their own right. The category of “good luck” is given for a reason, not just like that, but through those that they have a robot with great ideas for. Zavdyaki tsyom I give allowances, more than the first and first medical examination. But if you’re good, remember to write robots for people who want to, if I’ve got a great change of rules, like the stink of goiters should be tolerated, so that you don’t criticize the living, you don’t want to live in peace.

Analysis of the status of the issue. Previously, there were problems with the clarity of images due to metals or other imitation jewelry, so they asked, and are asking, to remove all belts, chains and possible piercings, so that everything passed quickly and easily, leaving no trace on the patient. But people with plates or pregnant women could not escape the frequency and intensity of radiation on their bodies, which gave rise to fears and disputes that are ongoing to this day. At the moment, almost all the fears and disputes have come to naught, both among the average layman and the doctors themselves. Thanks to the clear rules that both the doctor and the patient follow, almost all the misunderstandings or some kind of inaccuracies came to naught. Clear pictures on different ultrasonic waves supplied, which can be selected both for children, and for pregnant women or people who have inserted special metal mechanisms or plates that replace joints. Techniques have been developed, such as: spectral Dopplerography, tissue and pulsed diabetes, color Doppler mapping and combination options

Objective. In this article, I would like to convey information and familiarize you with the rules of work at the uzist workplace. This is done in order to reveal the

topic of the harm and benefits of ultrasonic sensors in the subject of labor protection and health.

Methods, materials and research results.

1. Only employees with a medical education and skills in using an ultrasound machine are allowed to work independently with ultrasound.

2. Allowed to work are required to undergo medical examination and not have contraindications for health reasons.

3. Pregnant or lactating women should not be involved in constant and long work in the area of exposure to alternating or constant magnetic fields, electro-and sound-magnetic radiation, or ultrasonic and electrostatic fields.

4. When working with the device, the doctor must be trained and familiarized with induction training on labor protection

5. The medical device must have: data sheet, grounding, be in good condition and have those. Service.

6. Employees are required to comply with the work and rest regime established by law and the hospital's internal labor regulations.

7. An employee must comply with sanitary standards and comply with fire safety requirements, know the actions in case of fire and evacuation exits

8. When performing work, dangerous and harmful production factors such as contact and air ultrasound, electric and magnetic fields, increased voltage in the circuit are possible

9. The equipment of the ultrasound cabinet should provide for the complete exclusion of the possibility of contact between maintenance personnel and patients with open current-carrying parts when performing work on them.

10. Perform all procedures for the maintenance of ultrasound machines with devices disconnected from the electrical network. Proceed with the cleaning of the sensors between the procedures in strict compliance with the operating instructions. Aerosols are not allowed to clean the keyboard, monitor, external surfaces, slide controls.

Conclusion. To ensure safe operation with an ultrasound machine, it is necessary to follow the rules set by the "Safety Instructions for Working with Diagnostic Ultrasound Machines". Also, having done the work in this article, we found that with a short-term stay near the apparatus or under the influence it does not affect health in any way. But since the uzist still works long-term, his work is rightly classified as dangerous.

References

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