

What determines the success of the treatment



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When preparing for the operation, in the first place people are worried about the qualifications of the surgeon, the second - about an anesthesiologist, but very rarely do they think about the equipment of the hospital, and in particular, about an operating room. But the quality of the operation depends on the reliability and sterility of the equipment.

The company Westmedgroup provides sales and mounting of equipment for clean rooms (Formedical), system of biological protection (Ego Zlin), equipment for disinfection and sterilization (Steris).

In our time, we put into practice hundreds of thousands of technical innovations that facilitate the work of doctors. They are diverse in nature. For example: medical console, delivery of anesthetic gases to the clean operating rooms, designed to economical use of space, the compact placement of anesthesia equipment, the protection of the working space of the non-functioning of wires and hoses. Humidifiers oxygen to prevent the oxygen burns of the respiratory tract, mucous dryness and as a consequence, respiratory complications. This issystem of biological protectionof the patient and staff against chemical and biological agents.

But apart from the obvious - the manipulation of instruments and tools to help treat now serve even the walls, floors, ceilings and medical furniture (beds, tables, chairs, couches, dressing table for clean rooms).

There are a variety of antibacterial materials, and each manufacturer can boast of its unique methodology.

Interest,in this regard, the "black" silicon.

Black silicon is a needle-shaped surface structure where needles are made of single-crystal silicon with height above 10 μm and diameter less than 1 μm . Its main feature is an increased absorption of incident light—the high reflectivity of the silicon, which is usually 20–30% for quasi-normal incidence, is reduced to about 5%.

A team at [Swinburne University of Technology in Melbourne](#) discovered in 2012 that [cicada](#) wings were potent killers of [Pseudomonas aeruginosa](#), an opportunist germ that also infects humans and is becoming [resistant to antibiotics](#). The effect came from regularly-spaced "nanopillars" on which bacteria were sliced to shreds as they settled on the surface.

Both cicada wings and black silicon were put through their paces in a lab, and both were bactericidal. Smooth to human touch, the surfaces destroyed Gram-negative and Gram-positive bacteria, as well as bacterial spores.

The three targeted bacterial species *P. aeruginosa*, *Staphylococcus aureus* and *Bacillus subtilis*, a wide-ranging soil germ that is a cousin of anthrax.

https://en.wikipedia.org/wiki/Black_silicon