

Medical Materials: An Overview

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EDITORIAL

The connection between technology, science and healthcare is medical materials, also known as biomaterials. In addition to specialist modules on physiology, tissue engineering and clinical applications and materials, these programmes integrate material design and medical expertise with core materials science modules.

What are the materials used in the hospital?

10 pieces of medical equipment all hospitals need:

Hospital stretchers: When coping with emergencies, transporting patients is very important. For hospitals to have on hand as patients' route through their care, this piece of equipment is an absolute must-have.

Defibrillators: Defibrillators restore natural rhythm to the heart, and is typically used in life-threatening conditions such as cardiac arrhythmias or tachycardia. They're critical instruments for which a hospital still needs backups.

Patient monitors: In order to maintain a sufficient degree of anaesthesia for a patient, anaesthesia machines are designed to provide an accurate and continuous supply of medical gases. A ventilator, suction unit, and patient-monitoring equipment are all used in modern anaesthesia machines.

Sterilizers: Hospital sterilisers destroy all types of microbial life, including fungi, bacteria, viruses, spores, and all other surgical instruments and other medical products that are present. An autoclave sterilises machinery and materials for a brief period of time using high pressure saturated steam.

EKG/ECG machines: Electrocardiogram (ECG) devices record the electrical activity of the heart over time, enabling health care providers to monitor the heart's overall rhythm and detect any anomalies.

Surgical tables: Surgical tables are a hospital requirement. These pieces of equipment are important for patient preparedness, surgical procedures and recovery.

Blanket and fluid warmers: Post-surgical complications such as perioperative hypothermia, prolonged hospitalisation and recovery, and an increased risk of infection may occur if body temperatures are not controlled during surgery. That is why it is so important for hospitals to have blanket warmers and fluid warmers.

Electrosurgical units: In surgery, an electrosurgical unit is used to cut, coagulate, or otherwise modify tissue, often to minimise the amount of blood flow to a region and improve visibility during surgery.

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