

The Importance Of Medical Device Packaging

As per "Data Bridge Market Research", Global Medical Device Packaging Market is expected to rise from its initial estimated value of USD 27.25 billion in 2018 to a projected value of USD 43.99 billion by 2026, registering a CAGR of 6.17% in the forecast period of 2019-2026. Asia Pacific Medical Device Packaging Market is expected to reach USD 8,892.6 million by 2024, from USD 5,054.4 million in 2016 growing at a CAGR of 7.4% in the forecast period 2017 to 2024.

This rise in market value can be attributed to innovations in packaging products offering and services. **The medical device development is not limited to the devices themselves, but also extends to their packaging and labeling.**

While medical devices are developed under rigorous quality controls, packages that house them are also subjected to rigorous validation processes.

The packaging used to seal and deliver medical devices is tested to ensure it will protect the sterility of instruments and implants. The resilient packaging must also meet rigorous labeling standards to meet regulatory requirements. Regulations do not just ensure monitoring and controlling of device quality, it also ensures that the packaging used is safe and effective at keeping the contents clean and germ-free.

In a study carries out by a leading packaging material company, it was found that 10% of medical device recalls are attributable to packaging failures and 31% of those are due to a hole in the packaging.

Pharmaceutical and medical device packaging must meet strict specifications to ensure patient safety. After specification development, medical packaging is subjected to rigorous testing procedures during which precise requirements and

specifications can be tested and confirmed, or, if needed, rejected and redeveloped.

In most cases, packages are intended to simply contain the product. However, for medical devices, there are other functions that the package serves; it provides protection, identification,

processability, ease of use, and special applications for device use and presentation. A basic knowledge of the product's use, dimensions, shape, and special characteristics (e.g. sharp edges, points, fragility, etc.); distribution environment, application, and barrier requirements are essential to selecting appropriate materials and effectively designing the final package.

A sterile medical device must have:

- Sterilization: Provide the ability to terminally sterilize the device

- by one or more methods without degrading the material.
- Shelf Life: Ensure the stability of the material as a barrier throughout the life cycle of the product.
- Environmental: Barrier to moisture, air, bacteria, oxygen, light.
- Physical: Provide dynamic protection, resist impacts and abrasion, and offer structural support.

Looking to the importance of the subject, the cover story highlights following important aspects regarding Medical Device Packaging:

- Salient Aspects Of Medical Device Packaging
- Quality Management Of Packaging Materials For Pharmaceuticals and Medical Devices
- Selecting the right Contract Ethylene Oxide Sterilisation Facility
- Anti-Counterfeiting Packaging Technology For Medical Devices.

