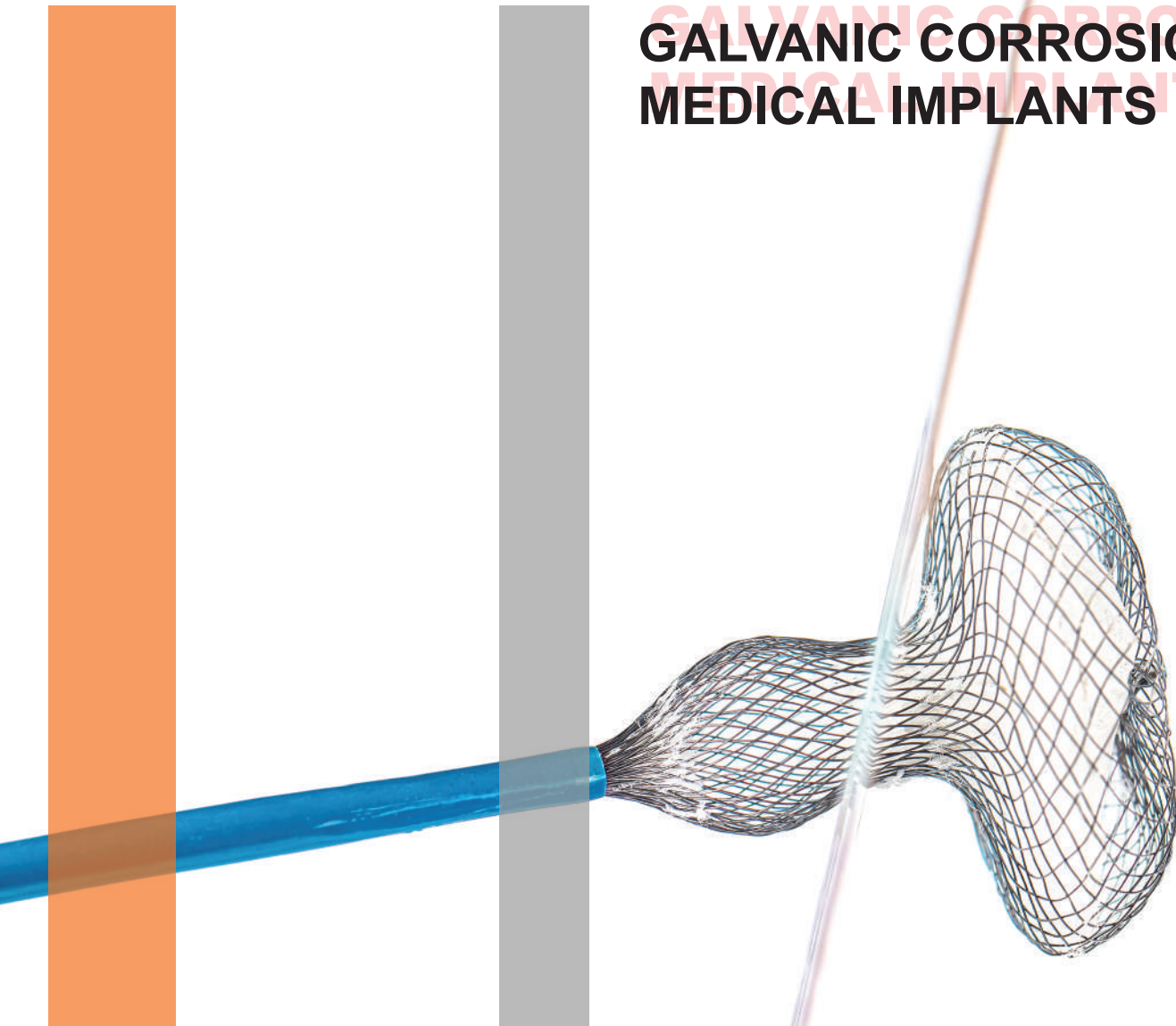


GALVANIC CORROSION - MEDICAL IMPLANTS



The test method is a standardized procedure used to evaluate galvanic corrosion between dissimilar metals in medical devices, particularly in modular implants such as orthopedic joint replacements. This test is significant because it simulates physiological conditions to assess the potential for corrosion when different metallic components come into contact within the human body. Galvanic corrosion can compromise the structural integrity and biocompatibility of implants, potentially leading to device failure or adverse biological reactions.

Manufacturers can ensure device safety, longevity, and regulatory compliance through reliable, reproducible corrosion testing.

GALVANIC CORROSION - MEDICAL DEVICES

01

Orthopedic Implants

Such as hip and knee replacements where different metals are used.

02

Dental Implants

Involving various metal alloys that may come into contact.

03

Cardiovascular Devices

Including stents and pacemakers that utilize multiple metallic components.

The test method for evaluating the potential for galvanic corrosion in implantable medical devices made from dissimilar metals. This test is essential as such devices may experience electrical contact between different metal components, which can lead to galvanic corrosion. This phenomenon can result in the release of harmful corrosion products or compromise the structural integrity of the device, posing significant risks to patient safety.

The test standard provides a systematic approach to assess the susceptibility of these devices to galvanic corrosion, thereby informing manufacturers about potential risks and guiding them in designing safer medical implants.