Biomedical Textile Engineering

Design, Development, and Manufacturing from Cortland Biomedical

Today's medical device companies are developing and marketing smaller, lower profile and more anatomically aligned medical devices utilizing advanced biomedical textiles. At Cortland Biomedical, we work closely with our partners to develop these custom high-performance biomedical structures applying our expertise in textile engineering and advanced fabric design methods including knitting, braiding and weaving.

We specialize in custom medical grade solutions and applications for:


Endoscopy


Performance Sutures and Wound Closures


General Surgery


Cardiovascular


Neurovascular


Orthopedics


Catheter-Based Delivery


Dental


Veterinary Medicine


Robotic Surgery


Sports Medicine

+ CUSTOM AND NEW EMERGING APPLICATIONS

At Cortland Biomedical, we've revisited the fundamentals of textile technology to challenge the status quo. Our thoughtful design concepts incorporate new methods of changing fabric density, pattern or fiber orientation on the fly, resulting in products that get closer to biomimicry than ever before. We can dial in and isolate properties to localized regions of fabrics in a way that simply isn't possible without the most modern textile forming equipment. We thrive on the ability to blend raw material properties and bio textile geometry to yield properties and performance characteristics previously unimagined.

Biomedical Textile Materials

High-performance textile materials including:

- Ultra-High Molecular Weight Polyethylene (UHMWPE)
- Polyester (PET)
- Liquid Crystal Polymer (LCP)
- Polyether Ether Ketone (PEEK)
- Polypropylene (PP)
- Aramids
- Polyglycolide (PGA)
- Polylactide (PLLA)
- Polytetrafluoroethylene (PTFE)

Metals and alloys including:

- Nitinol
- Stainless Steel
- Cobalt-Chrome
- Platinum
- Titanium
- Tungsten

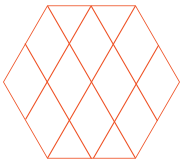
Want to learn more? Call us at (607) 218-3542 or email **info@cortlandbiomedical.com**

CORTLAND BIOMEDICAL®

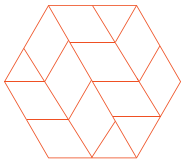
Benefits of Biomedical Textiles for Orthopedic and Surgical Applications

Our unique combination of advanced equipment, a seasoned biomedical textile-specific engineering team, and first-rate R&D capabilities allows us to tackle your complex challenges with the innovation and agility you expect and deserve.

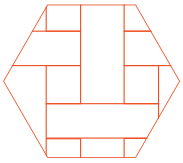
Our state-of-the-art facility reflects our commitment to offering superior, full-scale biomedical textile production, including:



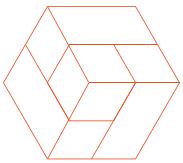
Braided solutions that feature high radial expansion and compaction, kink resistance, or can include a combination of materials; varying density or mandrel profiles for near-net shapes.



Knitted components, which can maximize pore size and stability for soft tissue repair applications. Our knit technology can vary fabric density and yarn orientation to create low profile fabrics with specialized regions for tissue in-growth and increased flexibility.



Woven fabric design with ultra-high density, low profile woven fabrics that are flat, tubular, branched or tapered. Our textile design capabilities allow for the inclusion of holes, reinforcement areas and other customizations, to allow you to realize your device's potential.



Textile assembly & fabrication from loops to eye splices to control cables. Tomorrow's medical devices require endless innovation in the way the structure interacts with the patient's anatomy. Novel textile fabrications allow our engineers to provide you and your end-users with game changing solutions to common surgical challenges.

Features and Benefits of Biomedical Textiles for Medical Devices

- Extremely flexible to aid in surgery and successfully integrate with the body
- Transparent or colored for improved visibility (depending on use)
- High degree of radial and tensile strength
- Thin and lightweight
- Biocompatible
- Manufactured with a validated process
- Extremely customizable (weave, weight, thickness, rigidity)
- Support low-profile delivery

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