



[Home \(home\)](#) » Chapter 24. Embroidery Technology for Medical Textiles

SEARCH



[More](#)

TITLE

## Chapter 24. Embroidery Technology for Medical Textiles

AUTHOR(S)

Karamuk, E.; Mayer, J.; Düring, M.; Wagner, B.; Bischoff, B.; Ferrario, R.; Billia, M.; Seidl, R.; Panizzon, R.; Wintermantel, E.

PUB. DATE

January 2001

SOURCE

Medical Textiles;2001, p200

SOURCE TYPE

Book

DOC. TYPE

Article

ABSTRACT

Textile structures are widely used as medical implants to replace and support soft and load bearing tissues and they serve as scaffolds in tissue engineering applications. In this study the potential of embroidery technology is investigated for the development of textile scaffold structures for tissue engineering and for medical applications. In a comparative experimental study the influence of ingrowing tissue on the mechanics of the thereby formed vital-avital composite has been investigated. An interlock knitted fabric has been compared to a specially designed embroidered fabric and a gelatine matrix has been used to simulate the ingrown tissue. It could be shown that due to the specific structure of the embroidery, stiffening effects known from other textiles i.e. woven and knitted fabrics could be inhibited. This observation together with the potential structural variety of embroidered fabrics, makes them interesting candidates for medical textiles applied to mechanically stressed tissues.

ACCESSION #

20785139

READ THE ARTICLE  
COURTESY OF YOUR LOCAL LIBRARY

[\(/library-search?s=1&an=20785139\)](#)

Courtesy of your local library

Public Libraries Near You (See All)

KONINKLIJKE MUSEA VOOR SCHONE  
KUNSTEN VAN BELGIE  
ROYAL MUSEUM OF CENTRAL  
AFRICA

Looking for a Different Library?

Enter a library name or part of a name, city, state, or province.

Or enter your postal code and country to search by location: (optional)

 

READ THE ARTICLE  
COURTESY OF YOUR LOCAL LIBRARY

[\(/library-search?s=1&an=20785139\)](#)

### Related Articles

[Chapter 25. Tissue Engineered Synthetic Scaffolds for Tissue Repair-- A Textile Approach to Implant Design.](#)

[\(/c/articles/20785152/chapter-25-tissue-engineered-synthetic-scaffolds-tissue-repair-textile-approach-implant-design\)](#), Minns, R. J. // Medical Textiles;2001, p207

The article discusses a textile approach to implant design using tissue engineered synthetic scaffolds for tissue repair. Tissue engineering concepts of producing a lattice for the ingrowth of cells in vivo to lay down the appropriate matrix have been used successfully for the skin and for the...

[Bio-medical textiles becoming popular. \(/c/articles/23362337/bio-medical-textiles-becoming-popular\)](#) Lakshmikantha, C. B.;

Shanmugasundaram, O. L. // Textile Magazine;Nov2006, Vol. 48 Issue 1, p90

The article focuses on the popularity of bio-medical textiles. Bio-medical textiles are categorized into specialized areas of applications and these are implantable materials, non-implantable materials, extracorporeal devices and sutures. Cardio-vascular grafts are examples of implantable...

[Plastics: new role in neural implants? \(/c/articles/34793519/plastics-new-role-neural-implants\)](#) // Biomedical Business &

Technology;Oct2008, Vol. 31 Issue 10, p34

The article focuses on the potential use of plastic coatings to encourage neurons in the body to grow and connect with the electrodes which provide treatment according to a presentation by Jessica Winter, assistant professor of chemical and biomolecular engineering at Ohio State University, at...

[Textile materials in implantable medical surgeries. \(/c/articles/26980185/textile-materials-implantable-medical-surgeries\)](#)

Somasundaram, D.; Kothari, V. K. // Indian Textile Journal;Jul2007, Vol. 117 Issue 10, p73

The article discusses the use of textile materials in implantable medical applications. Aside from medical clothes, textiles in fiber and

### Other Topics

[Afghanistan](#)  
[AIDS / HIV](#)  
[Alternative Energy Exploration](#)  
[Arctic Drilling](#)  
[Bank Bailout](#)  
[Blogging](#)  
[Border Walls](#)  
[Bullying in Schools](#)  
[Campaign Finance Reform](#)  
[Carbon Offsetting](#)  
[Economic Stimulus Package](#)  
[Endangered Species](#)  
[Executive Pay](#)  
[Global Warming](#)  
[Globalization](#)  
[Gun Control](#)  
[Immigration Restrictions](#)  
[Intelligent Design](#)  
[Iraq War](#)  
[Israel & the Palestinians](#)  
[Literacy](#)  
[Medicare](#)  
[North Korea](#)  
[Nuclear Power](#)

fabric forms are used as implants, filters and surgical dressings. One of the major developments in medical textile production is the application of...

[Chemical makers back implant litigation. \(/c/articles/9707025248/chemical-makers-back-implant-litigation\)](#) // Chemical Market Reporter;06/23/97, Vol. 251 Issue 25, p6

Discusses the implications of chemical companies' decision to stop supplying essential raw materials for life-saving implantable medical devices. Companies' fear that they will be dragged into costly product liability lawsuits; Remarks of Representative George W. Gekas, sponsor of a bill...

[Joint effort. \(/c/articles/74572415/joint-effort\)](#) CZYZEWSKI, ANDREW // Engineer (00137758);3/19/2012, Vol. 296 Issue 7835, p14

The article reports that a team from Limerick University in Ireland is seeking to increase the life of artificial joint implants.

[Biomaterials access bill. \(/c/articles/9503225481/biomaterials-access-bill\)](#) Blankenau, Renee // Materials Management in Health Care;Mar95, Vol. 4 Issue 3, p12

Reports on the introduction of a bill that would give legal protection in tort and suits to suppliers of raw materials used in implantable medical devices. Limitation of the liability of raw materials suppliers.

[Chapter 15: Medical textiles. \(/c/book-chapters/20633177/chapter-15-medical-textiles\)](#) Rigby, Alistair J.; Anand, Subhash C. // Handbook of Technical Textiles;2000, p407

The article discusses the textile materials in the field of medicine, its development and advances. It states that medical textile industry is the growing and important sector of textile industry. It presents the application of various textile materials in surgical and medical procedures....

[The Prevalence of Internal Orthopedic Fixation Devices in Children in the United States. 1988.](#)

[\(/c/articles/9309075214/prevalence-internal-orthopedic-fixation-devices-children-united-states-1988\)](#) Moore Jr., Roscoe M.; Bright, Roselie A.; Jeng, Lana L.; Sharkness, Catherine M.; Hamburger, Stanford E.; Hamilton, Peggy M. // American Journal of Public Health;Jul1993, Vol. 83 Issue 7, p1028

This study provides the first estimated prevalence of implanted orthopedic fixation devices (e.g., pins or wires) among children in the United States, based on the Medical Device Implant Supplement to the 1988 National Health Interview Survey. The overall prevalence was 27 per 10 000 children...

[Obesity](#)

[Pirates](#)

[Sex Education in Schools](#)

[Social Networking Sites](#)

[Stem Cell Research](#)

[Universal Health Care](#)

[Vegetarianism](#)

[War on Terror](#)