

# Long Term Results of Arterial Revascularization with Omniflow II® Biosynthetic Grafts: A Single Center Experience

Baran Şimşek<sup>1</sup>, Davut Azboy<sup>2</sup>, Zeki Temiztürk<sup>3</sup>

<sup>1</sup> Department of Cardiovascular Surgery, Medicana International Hospital, İstanbul, Türkiye

<sup>2</sup> Department of Cardiovascular Surgery, Elazığ Fethi Sekin State Hospital, Elazığ, Türkiye

<sup>3</sup> Department of Cardiovascular Surgery, University of Health Sciences Cam and Sakarya State Hospital, İstanbul, Türkiye

## Abstract

**Aim:** The aim of this study is to analyze the long-term outcomes of above-knee femoro-popliteal bypass procedures with Omniflow® II biosynthetic grafts. Primary patency and graft related complications were the end points of the study.

**Methods:** Between January 2012 and January 2021, a total of 50 patients (42 males, 8 females) were revascularized using an in-situ Omniflow® II graft. Demographic, clinical, operative and postoperative characteristics of the patients were analyzed retrospectively.

**Results:** Mean age was  $63.8 \pm 10.1$  (range 40-82) years. Fifty above-knee femoropopliteal bypass procedures were performed. Four patients (8%) were operated on due to a previous vascular graft infection where 8 (16%) were operated on due to a previous occlusion. Primary patency rate was 88%. Early graft thrombosis occurred in 2 (4%) patients where late graft stenosis unrelated to the anastomotic sites was encountered in 1 (2%) patient. An endarterectomy on either the proximal or distal site of the anastomosis were performed in 12 (24%) patients. Mean follow-up was  $32.9 \pm 20.8$  (range 12-90) months. Three (6%) patients died due to a COVID-19 infection. No graft infection nor mortality related to arterial bypass procedures was encountered.

**Conclusion:** The Omniflow® II biosynthetic graft provides superior results in treatment of above-knee femoro-popliteal bypass procedures with high patency rates and low incidence of graft infection and aneurysm formation.

**Keywords:** Biosynthetic graft, vascular grafting, revascularization, peripheral arterial disease

## 1. Introduction

Patients with peripheral arterial disease (PAD) have a poor circulation due to decreased arterial perfusion. The arterial blood flow to the distal extremity is restricted most frequently by systemic atherosclerosis. Its prevalence is 3-10% between 40-59 years and 15-20% over 70 years<sup>1</sup>. The most significant risk factors for PAD are diabetes mellitus (DM), hypertension (HT), hyperlipidemia (HL), chronic kidney disease (CKD), and smoking<sup>2</sup>. In addition, there is an increased rate of myocardial infarction, ischemic stroke, and cardiovascular death in patients with PAD<sup>3</sup>.

There is a remarkable elevated risk of adverse limb events like ischemic ulceration and gangrene unless treated. Revascularization deemed mandatory, particularly in patients with more advanced symptoms and presentations. Duplex ultrasonography, computed tomography angiography (CTA), magnetic resonance angiography or conventional peripheral angiography should be performed to diagnose and define the anatomy before revascularization. Though endovascular approaches have extended the invasive treatment modalities in peripheral arterial occlusive disease, surgical interventions must be considered especially for long occlusive disease, aneurysm formation, vascular graft infection and failure of endovascular treatment.

Despite the fact that superiority of the autogenous grafts are well-known, prosthetic grafts should be the selected conduit type in a variety of patients especially when autogenous grafts are not accessible, available or suitable<sup>4</sup>. Since 1983, the Omniflow® vascular grafts have been in clinical practice and advances in technology throughout this time period led to the current Omniflow® II vascular graft (OVG)<sup>5-7</sup>. Omniflow® II (Bio Nova International, Victoria, Australia) is created by using cross linked ovine collagen and an endoskeleton made of polyester mesh which

\* Corresponding Author: Baran Şimşek,  
e-mail: simsekbaran@yahoo.com

Received: 03.04.2023, Accepted: 01.08.2023, Available Online Date: 31.08.2023

Cite this article as: Simsek B, Azboy D, Temiztürk Z. Long term results of arterial revascularization with Omniflow® II biosynthetic grafts: a single center experience. J Cukurova Anesth Surg. 2023; 6(2): 210-4. doi: 10.36516/jocass.1276127  
Copyright © 2023 This is an open access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CC-BY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

# Long Term Results Of Arterial Interventions

**Lei Shi**



## **Long Term Results Of Arterial Interventions:**

Yeah, reviewing a books **Long Term Results Of Arterial Interventions** could amass your close associates listings. This is just one of the solutions for you to be successful. As understood, capability does not suggest that you have extraordinary points.

Comprehending as skillfully as contract even more than additional will have the funds for each success. next to, the notice as well as perspicacity of this Long Term Results Of Arterial Interventions can be taken as without difficulty as picked to act.

[https://pinsupreme.com/data/detail/index.jsp/seabiscuit\\_wild\\_pony\\_of\\_the\\_outer\\_banks.pdf](https://pinsupreme.com/data/detail/index.jsp/seabiscuit_wild_pony_of_the_outer_banks.pdf)

## **Table of Contents Long Term Results Of Arterial Interventions**

1. Understanding the eBook Long Term Results Of Arterial Interventions
  - The Rise of Digital Reading Long Term Results Of Arterial Interventions
  - Advantages of eBooks Over Traditional Books
2. Identifying Long Term Results Of Arterial Interventions
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Long Term Results Of Arterial Interventions
  - User-Friendly Interface
4. Exploring eBook Recommendations from Long Term Results Of Arterial Interventions
  - Personalized Recommendations
  - Long Term Results Of Arterial Interventions User Reviews and Ratings
  - Long Term Results Of Arterial Interventions and Bestseller Lists
5. Accessing Long Term Results Of Arterial Interventions Free and Paid eBooks
  - Long Term Results Of Arterial Interventions Public Domain eBooks

- Long Term Results Of Arterial Interventions eBook Subscription Services
- Long Term Results Of Arterial Interventions Budget-Friendly Options
- 6. Navigating Long Term Results Of Arterial Interventions eBook Formats
  - ePub, PDF, MOBI, and More
  - Long Term Results Of Arterial Interventions Compatibility with Devices
  - Long Term Results Of Arterial Interventions Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Long Term Results Of Arterial Interventions
  - Highlighting and Note-Taking Long Term Results Of Arterial Interventions
  - Interactive Elements Long Term Results Of Arterial Interventions
- 8. Staying Engaged with Long Term Results Of Arterial Interventions
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Long Term Results Of Arterial Interventions
- 9. Balancing eBooks and Physical Books Long Term Results Of Arterial Interventions
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Long Term Results Of Arterial Interventions
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Long Term Results Of Arterial Interventions
  - Setting Reading Goals Long Term Results Of Arterial Interventions
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Long Term Results Of Arterial Interventions
  - Fact-Checking eBook Content of Long Term Results Of Arterial Interventions
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks

### 14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

### **Long Term Results Of Arterial Interventions Introduction**

In the digital age, access to information has become easier than ever before. The ability to download Long Term Results Of Arterial Interventions has revolutionized the way we consume written content. Whether you are a student looking for course material, an avid reader searching for your next favorite book, or a professional seeking research papers, the option to download Long Term Results Of Arterial Interventions has opened up a world of possibilities. Downloading Long Term Results Of Arterial Interventions provides numerous advantages over physical copies of books and documents. Firstly, it is incredibly convenient. Gone are the days of carrying around heavy textbooks or bulky folders filled with papers. With the click of a button, you can gain immediate access to valuable resources on any device. This convenience allows for efficient studying, researching, and reading on the go. Moreover, the cost-effective nature of downloading Long Term Results Of Arterial Interventions has democratized knowledge. Traditional books and academic journals can be expensive, making it difficult for individuals with limited financial resources to access information. By offering free PDF downloads, publishers and authors are enabling a wider audience to benefit from their work. This inclusivity promotes equal opportunities for learning and personal growth. There are numerous websites and platforms where individuals can download Long Term Results Of Arterial Interventions. These websites range from academic databases offering research papers and journals to online libraries with an expansive collection of books from various genres. Many authors and publishers also upload their work to specific websites, granting readers access to their content without any charge. These platforms not only provide access to existing literature but also serve as an excellent platform for undiscovered authors to share their work with the world. However, it is essential to be cautious while downloading Long Term Results Of Arterial Interventions. Some websites may offer pirated or illegally obtained copies of copyrighted material. Engaging in such activities not only violates copyright laws but also undermines the efforts of authors, publishers, and researchers. To ensure ethical downloading, it is advisable to utilize reputable websites that prioritize the legal distribution of content. When downloading Long Term Results Of Arterial Interventions, users should also consider the potential security risks associated with online platforms. Malicious actors may exploit vulnerabilities in unprotected websites to distribute malware or steal personal information. To protect themselves, individuals should ensure their devices have reliable antivirus software installed and validate the legitimacy of the websites they are downloading from. In conclusion, the ability to download Long Term Results Of Arterial Interventions has transformed the way we access information. With the convenience, cost-effectiveness, and accessibility it offers, free PDF

downloads have become a popular choice for students, researchers, and book lovers worldwide. However, it is crucial to engage in ethical downloading practices and prioritize personal security when utilizing online platforms. By doing so, individuals can make the most of the vast array of free PDF resources available and embark on a journey of continuous learning and intellectual growth.

### FAQs About Long Term Results Of Arterial Interventions Books

1. Where can I buy Long Term Results Of Arterial Interventions books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Long Term Results Of Arterial Interventions book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Long Term Results Of Arterial Interventions books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Long Term Results Of Arterial Interventions audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media

or recommend them to friends.

9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read Long Term Results Of Arterial Interventions books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

### Find Long Term Results Of Arterial Interventions :

[seabiscuit wild pony of the outer banks](#)

[seatosky gold rush route a guide to the scenic railway of the white pass](#)

[seasons - guitar](#)

[search for the causes of schizophrenia vol5 volume 5](#)

[seasons of heron pond wildlings of air earth and water](#)

[sea island lady](#)

[seasoned with fun cooking and entertaining with pizzazz](#)

[seals on wheels](#)

[scrunchy crunchy cloth rub-a-dub-dub](#)

[scuba-diving the adventure series](#)

[seasonal dimensions to rural poverty](#)

[sea urchins creatures of the sea](#)

[sea of sand](#)

[sculptures en ciment du nigeria](#)

[sea kayaking canadas west coast](#)

### Long Term Results Of Arterial Interventions :

Dishwashers You'll see it in this easy-to-use. Owner's Manual and you'll hear it in the friendly voices of our customer service department. Best of all, you'll experience. My GE Potscrubber 1180 dishwasher seems to have lost ... Jul 25, 2010 — My GE Potscrubber 1180 dishwasher seems to have lost power. No lights work - Answered by a verified Appliance Technician. SureClean™ Wash System, 3 Wash Levels, 5 Cycles/14 ... GE® Built-In Potscrubber® Dishwasher w/ SureClean™ Wash

System, 3 Wash ... Owners Manual. Manuals & Downloads. Use and Care Manual · Literature · Quick Specs ... The water stopped draining from the tub of my GE ... Aug 23, 2010 — The water stopped draining from the tub of my GE Potscrubber 1180 Dishwasher (Model GSD1180X70WW). While the dishwasher was running, ... GE GSD1130 Use And Care Manual (Page 7 of 17) View and Download GE GSD1130 use and care manual online. GSD1130 dishwasher pdf manual download. You'll find two detergent dispensers on the inside door of ... GE Dishwasher User Manuals Download Ge Potscrubber GSC436 Use & Care Manual. 6 pages. Potscrubber GSC436 Use ... GSD1180 · Owner's Manual · Use And Care Manual · GSD1200 · Owner's Manual · Owner's ... Dishwasher Cleaning and Showing Some Parts. - YouTube Time to Test the GE Potscrubber. - YouTube How to Clean a GE Potscrubber Dishwasher Filter Cleaning the filter screen at least once a month or as necessary, if water stops draining properly, is a part of the regular maintenance for this appliance. GE Built-In Potscrubber Dishwasher w/ SureClean Wash ... Manual. View the manual for the GE Built-In Potscrubber Dishwasher w/ SureClean Wash System, 3 Wash here, for free. This manual comes under the category ... Psychological Science, 4th Edition Pedagogy based on the science of learning encourages time-on-task while facilitating long-term retention. The fourth edition introduces "Psychology: Knowledge ... Psychological Science, 4th Edition Pedagogy based on the science of learning encourages time-on-task while facilitating long-term retention. The fourth edition introduces "Psychology: Knowledge ... Psychological Science, 4th Edition by Gazzaniga, Michael Pedagogy based on the science of learning encourages time-on-task while facilitating long-term retention. The fourth edition introduces "Psychology: Knowledge ... Psychological Science, 4th Edition by Gazzaniga, Michael Pedagogy based on the science of learning encourages time-on-task while facilitating long-term retention. The fourth edition introduces "Psychology: Knowledge ... Psychological Science (Fourth Edition), by Gazzaniga ... Psychological Science (Fourth Edition), by Gazzaniga, Heatherton, & Halpern ; Item Number. 254606140651 ; Subject. Psychology ; Subjects. Psychology & Help ... Psychological Science (Fourth Edition) Psychological Science (Fourth Edition) > ISBN13: 9780393912760 · Rent. (Recommended). \$41.20. Term. Due. Price. Semester. Dec 15. \$41.20. Quarter. Dec 1. \$39.14. Psychological Science | Buy | 9780393911572 Full Title: Psychological Science ; Edition: 4th edition ; ISBN-13: 978-0393911572 ; Format: Hardback ; Publisher: WW Norton - College (12/21/2011). Psychological Science by Michael Gazzaniga; Diane ... Pedagogy based on the science of learning encourages time-on-task while facilitating long-term retention. The fourth edition introduces Psychology: Knowledge ... Psychological Science | Rent | 9780393912760 Full Title: Psychological Science ; Edition: 4th edition ; ISBN-13: 978-0393912760 ; Format: Paperback/softback ; Publisher: WW Norton - College (1/20/2012). PSYCHOLOGICAL SCIENCE, 4TH EDITION By Michael ... PSYCHOLOGICAL SCIENCE, 4TH EDITION By Michael Gazzaniga & Diane Halpern \*VG+\* ; Est. delivery. Wed, Oct 11 - Sat, Oct 14. From US, United States ; Returns. [Khana Pugos, Dina Pugos] - Goodreads Read 6 reviews from the world's largest community for readers. A Collection of selected essays by Rabindra Mishra which were published in Nepali National N... Khana Pugos, Dina Pugos (Nepali Edition): Mishra, Rabindra

Khana Pugos, Dina Pugos is a collection of essays by Rabindra Mishra. The essays primarily focus on the dual themes of 'Practical Philanthropy' and ... Khana Pugos Dina by Rabindra Mishra Khana Pugos, Dina Pugos (Nepali Edition) by Mishra, Rabindra and a great selection of related books, art and collectibles available now at AbeBooks.com. Khana Pugos, Dina Pugos - ११११ १११११११ ११११ १११११११ Khana Pugos, Dina Pugos is a collection of essays by Rabindra Mishra. The essays primarily focus on the dual themes of 'Practical Philanthropy' and ... Khana Pugos, Dina Pugos by Rabindra Mishra, Paperback Khana Pugos, Dina Pugos is a collection of essays by Rabindra Mishra. The essays primarily focus on the dual themes of 'Practical Philanthropy' Khana Pugos Dina Pugos Nepali Edition 9789937905848 Khana Pugos Dina Pugos Nepali Edition ; Item Number. 195602609481 ; ISBN. 9789937905848 ; EAN. 9789937905848 ; Accurate description. 4.9 ; Reasonable shipping cost. Khana Pugos, Dina Pugos (Paperback) Jul 10, 2018 — Khana Pugos, Dina Pugos is a collection of essays by Rabindra Mishra. The essays primarily focus on the dual themes of 'Practical ... Khāna pugos, dina pugos - Ravindra Miśra Articles on the social services and political activities of Nepal; previously published in 'Nitānta vyaktigata' column of daily newspapers 'Kantipur Daily' ... Khana Pugos Dina by Rabindra Mishra, Used Khana Pugos, Dina Pugos (Nepali Edition) by Mishra, Rabindra and a great selection of related books, art and collectibles available now at AbeBooks.com.