This document is only a SHORT PREVIEW of the Medifocus Guidebook on Abdominal Aortic Aneurysm. It is intended primarily to give you a general overview of the format and structure of the Guidebook as well as select pages from each major Guidebook section listed in the Table of Contents.

To purchase the COMPLETE Medifocus Guidebook on Abdominal Aortic Aneurysm (144 pages; Updated June 20, 2017), please:

• Call us at:
  • 800-965-3002 (United States)
  • 301-649-9300 (Outside the United States)

• Order online through our website:
  • **Printed Version**
    • Mailed to you and bound for easy reading.
    • Includes free online access to the electronic guidebook for one full year.

  • **Electronic Version**
    • Adobe PDF document that can be viewed or printed on any computer
    • Online updates are included for one full year.
# Table of Contents

**Background Information** ................................................................. 8  
  Introduction ..................................................................................... 8  
  About Your Medifocus Guidebook .................................................. 10  
  Ordering Full-Text Articles ............................................................. 13

**The Intelligent Patient Overview** .................................................... 15

**Guide to the Medical Literature** .................................................... 41  
  Introduction ..................................................................................... 41  
  Recent Literature: What Your Doctor Reads .................................. 42  
    Review Articles ............................................................................ 42  
    General Interest Articles ............................................................. 58  
    Surgical Therapy Articles .......................................................... 69  
    Clinical Trials Articles ............................................................... 75  
    Endovascular Repair Articles ....................................................... 88

**Centers of Research** ...................................................................... 104  
  United States ................................................................................ 106  
  Other Countries ............................................................................. 118

**Tips on Finding and Choosing a Doctor** ...................................... 135

**Directory of Organizations** .......................................................... 141
1 - Background Information

Introduction

Chronic or life-threatening illnesses can have a devastating impact on both the patient and the family. In today's new world of medicine, many consumers have come to realize that they are the ones who are primarily responsible for their own health care as well as for the health care of their loved ones.

When facing a chronic or life-threatening illness, you need to become an educated consumer in order to make an informed health care decision. Essentially that means finding out everything about the illness - the treatment options, the doctors, and the hospitals - so that you can become an educated health care consumer and make the tough decisions. In the past, consumers would go to a library and read everything available about a particular illness or medical condition. In today's world, many turn to the Internet for their medical information needs.

The first sites visited are usually the well known health "portals" or disease organizations and support groups which contain a general overview of the condition for the layperson. That's a good start but soon all of the basic information is exhausted and the need for more advanced information still exists. What are the latest "cutting-edge" treatment options? What are the results of the most up-to-date clinical trials? Who are the most notable experts? Where are the top-ranked medical institutions and hospitals?

The best source for authoritative medical information in the United States is the National Library of Medicine's medical database called PubMed®, that indexes citations and abstracts (brief summaries) of over 7 million articles from more than 3,800 medical journals published worldwide. PubMed® was developed for medical professionals and is the primary source utilized by health care providers for keeping up with the latest advances in clinical medicine.

A typical PubMed® search for a specific disease or condition, however, usually retrieves hundreds or even thousands of "hits" of journal article citations. That's an avalanche of information that needs to be evaluated and transformed into truly useful knowledge. What are the most relevant journal articles? Which ones apply to your specific situation? Which articles are considered to be the most authoritative - the ones your physician would rely on in making clinical decisions? This is where Medifocus.com provides an effective solution.

Medifocus.com has developed an extensive library of MediFocus Guidebooks covering a wide spectrum of chronic and life threatening diseases. Each MediFocus Guidebook is a...
high quality, up- to-date digest of "professional-level" medical information consisting of the most relevant citations and abstracts of journal articles published in authoritative, trustworthy medical journals. This information represents the latest advances known to modern medicine for the treatment and management of the condition, including published results from clinical trials. Each Guidebook also includes a valuable index of leading authors and medical institutions as well as a directory of disease organizations and support groups. MediFocus Guidebooks are reviewed, revised and updated every 4-months to ensure that you receive the latest and most up-to-date information about the specific condition.
About Your MediFocus Guidebook

Introduction

Your MediFocus Guidebook is a valuable resource that represents a comprehensive synthesis of the most up-to-date, advanced medical information published about the condition in well-respected, trustworthy medical journals. It is the same type of professional-level information used by physicians and other health-care professionals to keep abreast of the latest developments in biomedical research and clinical medicine. The Guidebook is intended for patients who have a need for more advanced, in-depth medical information than is generally available to consumers from a variety of other resources. The primary goal of a MediFocus Guidebook is to educate patients and their families about their treatment options so that they can make informed health-care decisions and become active participants in the medical decision making process.

The Guidebook production process involves a team of experienced medical research professionals with vast experience in researching the published medical literature. This team approach to the development and production of the MediFocus Guidebooks is designed to ensure the accuracy, completeness, and clinical relevance of the information. The Guidebook is intended to serve as a basis for a more meaningful discussion between patients and their health-care providers in a joint effort to seek the most appropriate course of treatment for the disease.

Guidebook Organization and Content

Section 1 - Background Information
This section provides detailed information about the organization and content of the Guidebook including tips and suggestions for conducting additional research about the condition.

Section 2 - The Intelligent Patient Overview
This section of your MediFocus Guidebook represents a detailed overview of the disease or condition specifically written from the patient's perspective. It is designed to satisfy the basic informational needs of consumers and their families who are confronted with the illness and are facing difficult choices. Important aspects which are addressed in "The Intelligent Patient" section include:

- The etiology or cause of the disease
- Signs and symptoms
- How the condition is diagnosed
- The current standard of care for the disease
- Treatment options
Section 3 - Guide to the Medical Literature

This is a roadmap to important and up-to-date medical literature published about the condition from authoritative, trustworthy medical journals. This is the same information that is used by physicians and researchers to keep up with the latest developments and breakthroughs in clinical medicine and biomedical research. A broad spectrum of articles is included in each MediFocus Guidebook to provide information about standard treatments, treatment options, new clinical developments, and advances in research. To facilitate your review and analysis of this information, the articles are grouped by specific categories. A typical MediFocus Guidebook usually contains one or more of the following article groupings:

• **Review Articles:** Articles included in this category are broad in scope and are intended to provide the reader with a detailed overview of the condition including such important aspects as its cause, diagnosis, treatment, and new advances.

• **General Interest Articles:** These articles are broad in scope and contain supplementary information about the condition that may be of interest to select groups of patients.

• **Drug Therapy:** Articles that provide information about the effectiveness of specific drugs or other biological agents for the treatment of the condition.

• **Surgical Therapy:** Articles that provide information about specific surgical treatments for the condition.

• **Clinical Trials:** Articles in this category summarize studies which compare the safety and efficacy of a new, experimental treatment modality to currently available standard treatments for the condition. In many cases, clinical trials represent the latest advances in the field and may be considered as being on the "cutting edge" of medicine. Some of these experimental treatments may have already been incorporated into clinical practice.

The following information is provided for each of the articles referenced in this section of your MediFocus Guidebook:

• Article title
• Author Name(s)
• Institution where the study was done
• Journal reference (Volume, page numbers, year of publication)
• Link to Abstract (brief summary of the actual article)

Linking to Abstracts: Most of the medical journal articles referenced in this section of your MediFocus Guidebook include an abstract (brief summary of the actual article) that can be accessed online via the National Library of Medicine's PubMed® database. You can easily access the individual abstracts online via PubMed® from the "electronic" format of your MediFocus Guidebook by clicking on the corresponding URL address that is provided for each cited article. If you purchased a printed copy of a MediFocus Guidebook, you can still access the article abstracts online by entering the individual URL address for a particular article into your web browser.

Section 4 - Centers of Research
We've compiled a unique directory of doctors, researchers, medical centers, and research institutions with specialized research interest, and in many cases, clinical expertise in the management of the specific medical condition. The "Centers of Research" directory is a valuable resource for quickly identifying and locating leading medical authorities and medical institutions within the United States and other countries that are considered to be at the forefront in clinical research and treatment of the condition.

Inclusion of the names of specific doctors, researchers, hospitals, medical centers, or research institutions in this Guidebook does not imply endorsement by Medifocus.com, Inc. or any of its affiliates. Consumers are encouraged to conduct additional research to identify health-care professionals, hospitals, and medical institutions with expertise in providing specific medical advice, guidance, and treatment for this condition.

Section 5 - Tips on Finding and Choosing a Doctor
One of the most important decisions confronting patients who have been diagnosed with a serious medical condition is finding and choosing a qualified physician who will deliver high-level, quality medical care in accordance with currently accepted guidelines and standards of care. Finding the "best" doctor to manage your condition, however, can be a frustrating and time-consuming experience unless you know what you are looking for and how to go about finding it. This section of your Guidebook offers important tips for how to find physicians as well as suggestions for how to make informed choices about choosing a doctor who is right for you.

Section 6 - Directory of Organizations
This section of your Guidebook is a directory of select disease organizations and support groups that are in the business of helping patients and their families by providing access to information, resources, and services. Many of these organizations can answer your questions, enable you to network with other patients, and help you find a doctor in your geographical area who specializes in managing your condition.
2 - The Intelligent Patient Overview

ABDOMINAL AORTIC ANEURYSM

Introduction to Abdominal Aortic Aneurysm

The aorta is the main trunk of the arterial system that carries oxygenated blood from the heart to all points in the body. The aorta arises from the left ventricle of the heart and ends at the lumbar area where it divides to form the right and left common iliac arteries that run down each leg. The abdominal aorta is the portion that is located in the abdominal area between the renal arteries and the iliac bifurcation (split) and it travels down the frontal surface of the vertebral column (spine).

Arteries consist of three layers:

- Tunica intima - the inner layer
- Tunica media - the middle layer
- Tunica adventitia - the outer layer

An aneurysm is an abnormal widening of an artery with an increase of greater than 1.5 times the normal diameter. It usually involves a weakness in the tunica media resulting in stretching of the tunica adventitia and/or the tunica intima. As blood is pumped through the artery, the weakened wall is stretched further often creating an egg-shaped ballooning. An aneurysm may have deposits of cholesterol, calcium, and even small blood clots. Aneurysms typically grow over time, usually at an average of 1/8 - 1/4 inch per year. Additional expansion can be caused by blood pressure within the aneurysm.

An aneurysm can occur in any blood vessel in the body, but it most commonly occurs in the aorta. A common site for an aortic aneurysm is the part of the vessel that is immediately below the renal arteries (which supply the kidneys with blood) but above the iliac arteries (which supply the legs with blood). This is called an abdominal aortic aneurysm (AAA).

The aorta undergoes growth and increases in diameter during childhood, adolescence, and between the ages of 25 and 75 when the diameter increases by approximately 25%. Diameter of the normal aorta is larger in men than in women. The average size of a normal aorta ranges from approximately 1.7 cm. to 2.4 cm. depending on gender, body habitus, and age.

The International Society for Cardiovascular Surgery/Society for Vascular Surgery defines abdominal aortic aneurysm as a focal dilation (widening) of the abdominal aorta where the diameter is at least 50% larger than the expected normal diameter for that individual. The standard measurement accepted by many clinicians and clinical trials for a focal dilation to be considered an abdominal aortic aneurysm is a diameter greater than 3 cm.
The incidence and prevalence of abdominal aortic aneurysm increases with age, making this condition a significant issue as the population ages. It is most common in elderly men and occurs in 5% to 7% of people over the age of 65 in the United States. The ratio of men to women who develop an abdominal aortic aneurysm is 3:1. After age 65, the prevalence of 3 cm. aneurysms in men increases by approximately 6% per decade. It is estimated that the rate of clinically relevant aneurysm (4 cm. or more) increases approximately 2% to 4% per decade. Children can develop abdominal aortic aneurysms as a result of trauma or certain medical conditions but this is very rare.

Approximately 36 of every 100,000 surgical procedures performed in the U.S. is for repair of abdominal aortic aneurysms. Rupture of abdominal aortic aneurysm is the 10th leading cause of death in men over the age of 55. Abdominal aortic aneurysm is rare in women younger than 55. Mortality related to abdominal aortic aneurysm is most often (in up to 60% of patients) related to other cardiovascular causes.

It is of the utmost importance that aneurysms be diagnosed as early as possible and that patients be monitored carefully at regular intervals by ultrasound imaging in order make prudent decisions regarding elective surgical repair to prevent rupture and prolong life.

Types of Abdominal Aortic Aneurysm

There are various shapes which an abdominal aortic aneurysm (AAA) can assume including:

- Saccular aneurysm - appears as an outpouching arising from one part of the aorta, has a neck, and does not involve the entire circumference of the aorta.

- Fusiform aneurysm - this is tubular shaped, involves the entire circumference of the localized aorta, and has no neck.

- Mycotic aneurysm - a rare aneurysm caused by a fungal infection which may be associated with immunodeficiency, IV drug abuse, heart valve surgery.

- Pseudoaneurysm - only the outside layer of the aorta (tunica adventitia) is dilated

Many aneurysms begin as fusiform shaped with the proximal (closer to the heart) end just below the renal arteries and the distal end (away from the heart) towards the point where the aorta bifurcates (divides) into the iliac arteries. Aneurysms may become more spherical as they grow and they may become angulated or tortuous (e.g., they do not lay straight or they twist away from the midline).

Risk Factors for Abdominal Aortic Aneurysm

Though the exact cause of the formation and expansion of abdominal aortic aneurysms (AAA) is unknown, there are several factors which have been identified as placing an individual at higher risk for formation of an abdominal aortic aneurysm, including:
• Smoking - Smoking is considered the strongest risk factor for formation and expansion of abdominal aortic aneurysms and approximately 90% of patients with AAAs have smoked in the past or smoke currently. Smoking may increase the growth rate of an existing aneurysm by as much as 25% and is more predictive of expansion than high blood pressure. The rate of expansion for former smokers is slightly less than for current smokers. Estimates are that smoking 40 years or more increases the risk of abdominal aortic aneurysm formation six-fold and smoking 20 cigarettes a day increases the probability seven-fold. The risk of death resulting from rupture is also higher among current smokers. If an individual stops smoking, the risk of AAA formation slightly declines and if an abdominal aortic aneurysm is already present, the risk of rupture also declines slightly.

• Gender - abdominal aortic aneurysm occurs more frequently and at an earlier age in men than in women by a ratio of 3:1.

• Atherosclerosis - atherosclerosis is the hardening and narrowing of arteries. It is caused by the slow buildup of plaque (fatty deposits) on the inside of walls of the arteries. Lipid (fatty) deposits along the lining of the aorta weaken the walls leading to the formation of an aneurysm. Risk factors for atherosclerosis include:
  • smoking
  • elevated cholesterol
  • hypertension (high blood pressure)
  • family history of atherosclerosis
  • diabetes

• Older age - People 60 years of age or older are at higher risk for developing an abdominal aortic aneurysm than individuals who are younger than 60.

• Family history of AAA - genetics may play a role in the development of AAAs since first-degree relatives of patients, especially brothers of males with AAA, are at higher risk (estimates are up to 30%) for formation of an abdominal aortic aneurysm. In addition, family history of AAA increases the risk of rupture in the individual with abdominal aortic aneurysm.

• Hypertension - High blood pressure

• Chronic obstructive pulmonary disease (COPD)

• Previous vascular surgery

• Blunt abdominal injury (in children)

**Natural Progression of Abdominal Aortic Aneurysm**
The natural history of abdominal aortic aneurysms (AAA) is difficult to determine and predict on an individual basis despite increasing knowledge and information in recent years about aneurysm growth patterns. Different patterns of expansion have been noted in patients with abdominal aortic aneurysm who have been followed by serial non-invasive methods, such as abdominal ultrasound. Some aneurysms may remain stable for long periods while others enlarge progressively or expand rapidly. The average expansion rate has been estimated to be about a 10% increase in diameter per year.

An abdominal aortic aneurysm may develop slowly over many years without producing any readily apparent clinical symptoms. In fact, about 60% to 70% of patients with abdominal aortic aneurysm are asymptomatic. Small AAAs present a very low risk for rupture but they must be followed carefully to monitor their expansion in order to minimize the risk of rupture. Screening studies involving ultrasound imaging indicate that approximately 5% of men above the age of 65 have small abdominal aortic aneurysms ranging in size from 3-6 cm. When the aneurysm reaches a diameter of 5.5 cm, elective surgical repair of the aneurysm is recommended as it significantly reduces the rate of rupture and mortality.

There is continuing debate regarding the threshold diameters used to determine the appropriate time for elective surgical intervention. There are indications that some people may require intervention before the aneurysm reaches 5.5 cm and others may be able to wait until it is slightly larger. Surgeons therefore take into account that the cutoff diameter for surgery is just an average and may vary for each person depending upon:

- Gender - women may require a lower standard of diameter size before intervention. The Joint Council of the American Association for Vascular Surgery (JCAAVS) recommends that the threshold for intervention for women be considered at 5.0 cm.

- Body habitus - obese individuals may be able to reach a higher diameter before intervention

- Family history of abdominal aortic aneurysm

Many abdominal aortic aneurysms remain small, however, they may expand and may do so at different rates. When expansion is present, the aneurysm is followed very carefully for size and rate of expansion since each determines the point at which surgical intervention is considered - i.e. if the size reaches 5.5 cm. (average) or if expansion rate is greater than 1 cm. per year.

Although it appears that the risk of rupture is low for aneurysms below 5.0 cm., it is critical for each patient be carefully evaluated on an ongoing basis and that individuals with small AAAs comply fully with the monitoring schedule set forth by their physician.

**Complications of Abdominal Aortic Aneurysm**

The most serious and life threatening complication of abdominal aortic aneurysm (AAA) is rupture of the aneurysm which results in profuse internal bleeding. Rupture of an AAA is a serious medical emergency and is associated with a high mortality rate. Massive bleeding from a ruptured
abdominal aortic aneurysm into the abdominal cavity can lead to cardiovascular collapse and shock. A ruptured abdominal aortic aneurysm is an acute medical emergency and must be diagnosed and treated urgently to improve the patient's chances of survival.

Approximately 15,000 people die each year in the United States from ruptured abdominal aortic aneurysms and some researchers estimate that the number may be even higher. Up to 15% of people may survive a ruptured aneurysm but their mortality risk increases since only 50% survive the surgical repair.

Risk factors that have been associated with rupture of abdominal aortic aneurysm include:

- **AAA Size** - The single most important factor that consistently correlates with the risk of rupture of an AAA is its size (diameter and length). The risk of rupture increases with increasing size of AAA and is significantly higher when the aneurysm reaches an average of 5.0 - 5.5 cm. and approaches 6 cm. According to the Joint Council of the American Association for Vascular Surgery (JCAAVS), the most accurate predictor of risk for aneurysmal rupture is the size of the aneurysm. The approximate risk of rupture for AAAs based on size of the aneurysm is as follows:
  - 0% risk below 4 cm. diameter
  - 0.5% - 5% for 4 - 5 cm. diameter
  - 3% - 15% for 5 - 6 cm. diameter
  - 10% - 20% for 6 - 7 cm. diameter
  - 20% - 40% for 7 - 8 cm. diameter
  - 30% - 50% for diameter above 8 cm.

- Female gender
- Current smoker
- Cardiovascular disease
- Chronic Obstructive Pulmonary Disease (COPD)
- Hypertension
- Stroke
- Positive family history of AAA
- Rapid expansion of the diameter of an aneurysms - defined as more than 1cm. per year. Some clinicians use this measure as the basis of decision regarding elective repair of small AAAs (less than 5 cm.). Rapid expansion is thought to be associated with smoking and advanced age.
- Ratio of diameter of the AAA to the normal diameter of the individual's aorta immediately above (proximal) the neck of the aneurysm. There is continued debate regarding the validity
or usefulness of this measure.

• Shape of the aneurysm - some surgeons believe that rupture is related to stress on the wall of the artery. Saccular-shaped aneurysms because of their asymmetric shape, exert greater stress on the arterial wall and are, therefore, more likely to rupture.

• Presence of outpouchings in the aneurysm indicates thinning in the arterial wall and this is thought by some researchers to raise the risk of rupture by up to 70%.

• The presence of a thrombus (blood clot) may raise the risk of rupture.

When all these factors are taken into consideration, the risk of rupture of an abdominal aortic aneurysm is determined to be low, average, or high. The JCAAVS notes that for patients with an abdominal aortic aneurysm between the sizes of 4.0 and 5.5, the relative risk of rupture is increased with the following factors:

• Female gender
• Larger diameter at diagnosis
• Current smoker
• Severe COPD

The Joint Council of the American Association for Vascular Surgery (JCAAVS) and Society for Vascular Surgery notes that the risk of rupture of an abdominal aortic aneurysm is substantially increased when the diameter increases from 5 cm. to 6 cm. They recommended that a diameter 5.5 cm. be considered as the threshold for elective surgical repair in the average patient. It should be noted, however, that each individual should be evaluated for relative risk based on factors outlined above as well as body habitus (e.g., for women 4.5 cm. - 5 cm. should be considered as the cutoff whereas for large men, the cutoff may be close to 6 cm.).

In addition to the risk of rupture, other complications of an abdominal aortic aneurysm may include:

• Aortic Dissection - the lining of the artery tears and blood leaks into the wall of the artery
• Hypovolemic shock (decrease in the volume of circulating blood as a result of hemorrhage).
• Arterial embolism - obstruction or occlusion of a vessel by a blood clot.
• Insufficient circulation past the aneurysm leading to intermittent claudication (lameness due to pain in leg muscles because the blood supply is inadequate).
• Kidney damage
• Myocardial infarction (heart attack)
• Stroke
Screening for Abdominal Aortic Aneurysm

Since abdominal aortic aneurysm (AAA) is usually asymptomatic and early detection is so crucial in prolonging life and preventing rupture, there is considerable discussion regarding the advantages and disadvantages of screening the general population as they turn 65 years old. The major advantage of mass screening for abdominal aortic aneurysm is that physicians would be alerted to asymptomatic patients who may be at high risk for rupture who would continue to be monitored at regular intervals.

Studies that have conducted screening regimens with various populations have reported significantly reduced incidence of ruptured abdominal aneurysms following early, elective surgical intervention. Some clinicians choose to screen patients who may have a high risk profile for the formation of AAAs including:

- Individuals with atherosclerotic disease.
- Individuals who experience intermittent claudication (lameness due to pain in leg muscles because the blood supply is inadequate).
- Siblings of patients with AAA who are over the age of 50

The drawbacks for screening large segments of the population for the presence of an abdominal aortic aneurysm include:

- The psychological effect on the quality of life of individuals who find out they have a small AAA and have difficulty coping with the tension of not being able to seek any effective treatment until the aneurysm expands. Studies have indicated that patient's perception of their health condition is negatively impacted when informed of the presence of even a small AAA, particularly if they have had a poor quality of life before they are diagnosed.

- Currently, there is no treatment that slows expansion of aneurysms or alters the course of growth so that wide scale screening of the general population may not be cost effective.

Some clinicians suggest that if a person has any of the risk factors for development of an abdominal aortic aneurysm described above, they should discuss with their health care provider the possibilities regarding screening for AAA at regular intervals. Although it is well recognized that early detection of abdominal aortic aneurysms can save lives by preventing rupture, mass screening of the general population is not cost-effective and is, therefore, not used routinely at the present time.
The Intelligent Patient Overview in the complete Medifocus Guidebook on Abdominal Aortic Aneurysm also includes the following additional sections:

- Diagnosis of Abdominal Aortic Aneurysm
- Treatment Options for Abdominal Aortic Aneurysm
- Patient Preference and Quality of Life Issues in Abdominal Aortic Aneurysm
- Questions to Ask Your Health Care Provider About Abdominal Aortic Aneurysm

To Order the Complete Guidebook on Abdominal Aortic Aneurysm Click Here
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)
3 - Guide to the Medical Literature

Introduction

This section of your MediFocus Guidebook is a comprehensive bibliography of important recent medical literature published about the condition from authoritative, trustworthy medical journals. This is the same information that is used by physicians and researchers to keep up with the latest advances in clinical medicine and biomedical research. A broad spectrum of articles is included in each MediFocus Guidebook to provide information about standard treatments, treatment options, new developments, and advances in research.

To facilitate your review and analysis of this information, the articles in this MediFocus Guidebook are grouped in the following categories:

- Review Articles - 46 Articles
- General Interest Articles - 22 Articles
- Surgical Therapy Articles - 8 Articles
- Clinical Trials Articles - 27 Articles
- Endovascular Repair Articles - 31 Articles

The following information is provided for each of the articles referenced in this section of your MediFocus Guidebook:

- Title of the article
- Name of the authors
- Institution where the study was done
- Journal reference (Volume, page numbers, year of publication)
- Link to Abstract (brief summary of the actual article)

Linking to Abstracts: Most of the medical journal articles referenced in this section of your MediFocus Guidebook include an abstract (brief summary of the actual article) that can be accessed online via the National Library of Medicine's PubMed® database. You can easily access the individual abstracts online via PubMed® from the "electronic" format of your MediFocus Guidebook by clicking on the URI that is provided for each cited article. If you purchased a printed copy of the MediFocus Guidebook, you can still access the abstracts online by entering the individual URI for a particular abstract into your computer's web browser.
1. Is volume important in aneurysm treatment outcome?

Authors: Katsargyris A; Klonaris C; Verhoeven EL
Institution: Department of Vascular and Endovascular Surgery, Paracelsus Medical University, Nuremberg, Germany - athanasios.katsargyris@klinikum-nuernberg.de. Athens, Greece. Nuremberg, Germany.


Authors: Khashram M; Williman JA; Hider PN; Jones GT; Roake JA
Institution: Department of Surgery, University of Otago, Christchurch, New Zealand; Department of Vascular, Endovascular & Transplant Surgery, Christchurch Hospital, Christchurch, New Zealand. Electronic address: manar.khashram@gmail.com. Christchurch, New Zealand. of Vascular, Endovascular & Transplant Surgery, Christchurch Hospital, Christchurch, New Zealand.
The Guide to the Medical Literature in the complete Medifocus Guidebook on Abdominal Aortic Aneurysm includes the following sections:

- Review Articles - 46 Articles
- General Interest Articles - 22 Articles
- Surgical Therapy Articles - 8 Articles
- Clinical Trials Articles - 27 Articles
- Endovascular Repair Articles - 31 Articles

To Order the Complete Guidebook on Abdominal Aortic Aneurysm Click Here
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)
4 - Centers of Research

This section of your MediFocus Guidebook is a unique directory of doctors, researchers, medical centers, and research institutions with specialized research interest, and in many cases, clinical expertise in the management of this specific medical condition. The Centers of Research directory is a valuable resource for quickly identifying and locating leading medical authorities and medical institutions within the United States and other countries that are considered to be at the forefront in clinical research and treatment of this disorder.

Use the Centers of Research directory to contact, consult, or network with leading experts in the field and to locate a hospital or medical center that can help you.

The following information is provided in the Centers of Research directory:

- **Geographic Location**
  - United States: the information is divided by individual states listed in alphabetical order. Not all states may be included.
  - Other Countries: information is presented for select countries worldwide listed in alphabetical order. Not all countries may be included.

- **Names of Authors**
  - Select names of individual authors (doctors, researchers, or other health-care professionals) with specialized research interest, and in many cases, clinical expertise in the management of this specific medical condition, who have recently published articles in leading medical journals about the condition.
  - E-mail addresses for individual authors, if listed on their specific publications, is also provided.

- **Institutional Affiliations**
  - Next to each individual author's name is their institutional affiliation (hospital, medical center, or research institution) where the study was conducted as listed in their publication(s).
  - In many cases, information about the specific department within the medical institution where the individual author was located at the time the study was conducted is also provided.
# Centers of Research

## United States

### AL - Alabama

<table>
<thead>
<tr>
<th>Name of Author</th>
<th>Institutional Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan WD Jr</td>
<td>Section of Vascular Surgery and Endovascular Therapy, Department of Surgery, University of Alabama at Birmingham, Birmingham, Ala.</td>
</tr>
<tr>
<td>Keith CJ Jr</td>
<td>Section of Vascular Surgery and Endovascular Therapy, Department of Surgery, University of Alabama at Birmingham, Birmingham, Ala.</td>
</tr>
</tbody>
</table>

### CA - California

<table>
<thead>
<tr>
<th>Name of Author</th>
<th>Institutional Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacharach JM</td>
<td>University of South Florida, Tampa, Fla. Electronic address: <a href="mailto:pnelson1@health.usf.edu">pnelson1@health.usf.edu</a>.; St. Luke's Episcopal Hospital at Texas Heart Institute, Houston, Tex.; VA San Diego, San Diego, Calif.; Lake Health, Willoughby, Ohio.; VA Loma Linda, Loma Linda, Calif.</td>
</tr>
<tr>
<td>Bhak RH</td>
<td>Department of Veterans Affairs Cooperative Studies Program Coordinating Center, West Haven, Connecticut 2Yale School of Public Health, Yale University, West Haven, Connecticut. West Haven, Connecticut 2Yale School of Public Health, Yale University, West Haven, Connecticut. Texas7Department of Surgery, School of Medicine, University of Hartford, West Hartford, C. West Haven, Connecticut 2Yale School of Public Health, Yale University, West Haven, Connecticut. Texas7Department of Surgery, School of Medicine, University of California, Irvine8Long Beach Veterans Affairs Healthcare System, Long Beach, California.</td>
</tr>
<tr>
<td>Casey K</td>
<td>Division of Vascular Surgery, Naval Medical Center San Diego, San Diego, Calif.</td>
</tr>
<tr>
<td>Chun KC</td>
<td>Department of Surgery, Sacramento VA Medical Center, Mather, Calif. California, Davis, Sacramento, Calif. of Medicine, University of California, Davis, Sacramento, Calif. Surgery, University of California, Davis, Sacramento, Calif. Electronic address: <a href="mailto:eugenes.lee@ucdmc.ucdavis.edu">eugenes.lee@ucdmc.ucdavis.edu</a>.</td>
</tr>
</tbody>
</table>
The **Centers of Research** in the complete Medifocus Guidebook on Abdominal Aortic Aneurysm includes the following sections:

- Centers of Research for relevant states in the United States
- Centers of Research listed for relevant countries outside the United States

To Order the Complete **Guidebook on Abdominal Aortic Aneurysm** [Click Here](#)
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)
## 5 - Tips on Finding and Choosing a Doctor

### Introduction

One of the most important decisions confronting patients who have been diagnosed with a serious medical condition is finding and choosing a qualified physician who will deliver a high level and quality of medical care in accordance with currently accepted guidelines and standards of care. Finding the "best" doctor to manage your condition, however, can be a frustrating and time-consuming experience unless you know what you are looking for and how to go about finding it.

The process of finding and choosing a physician to manage your specific illness or condition is, in some respects, analogous to the process of making a decision about whether or not to invest in a particular stock or mutual fund. After all, you wouldn't invest your hard-earned money in a stock or mutual fund without first doing exhaustive research about the stock or fund's past performance, current financial status, and projected future earnings. More than likely you would spend a considerable amount of time and energy doing your own research and consulting with your stock broker before making an informed decision about investing. The same general principle applies to the process of finding and choosing a physician. Although the process requires a considerable investment in terms of both time and energy, the potential payoff can be well worth it--after all, what can be more important than your health and well-being?

This section of your Guidebook offers important tips for how to find physicians as well as suggestions for how to make informed choices about choosing a doctor who is right for you.

### Tips for Finding Physicians

Finding a highly qualified, competent, and compassionate physician to manage your specific illness or condition takes a lot of hard work and energy but is an investment that is well-worth the effort. It is important to keep in mind that you are not looking for just any general physician but rather for a physician who has expertise in the treatment and management of your specific illness or condition. Here are some suggestions for where you can turn to identify and locate physicians who specialize in managing your disorder:

- **Your Doctor** - Your family physician (family medicine or internal medicine specialist) is a good starting point for finding a physician who specializes in your illness. Chances are that your doctor already knows several specialists in your geographic area who specialize in your illness and can recommend several names to you. Your doctor can also provide you with information about their qualifications, training, and hospital affiliations.
The Tips on Finding and Choosing a Doctor in the complete Medifocus Guidebook on Abdominal Aortic Aneurysm includes additional information that will assist you in locating a highly qualified and competent physician to manage your specific illness.

To Order the Complete Guidebook on Abdominal Aortic Aneurysm Click Here
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)
6 - Directory of Organizations

Vascular Disease Foundation
1075 S. Yukon, Suite 320  Lakewood, Colorado 80226
888.VDF.4INFO (888.833.4463)
www.vdf.org

American College of Cardiology
Heart House; 2400 N Street NW  Washington DC, 20037
202.375.6000
resource@acc.org
www.acc.org

American Heart Association
7272 Greenville Avenue; Dallas, TX, 75231-4596
800.242.8721; 214.706.1341 (f)
www.americanheart.org

Aneurysm Outreach Inc.
17222 Highway 929; Prairieville, LA  70769
225.622.1577
aoi@alink.org
www.alink.org

Cleveland Clinic Health Information Center
9500 Euclid Avenue; Cleveland, OH  44195
800.223.2273  216.444.3771; 216.445.4490 (f)
healthl@ccf.org
www.clevelandclinic.org/health

Consumer Nutrition Hotline; National Center for Nutrition and Dietetics
120 South Riverside Plaza; Suite 2000; Chicago, IL  60606
800.877.1600
www.eatright.org
The Directory of Organizations in the complete Medifocus Guidebook on Abdominal Aortic Aneurysm includes a list of selected disease organizations and support groups that are helping people diagnosed with Abdominal Aortic Aneurysm.

To Order the Complete Guidebook on Abdominal Aortic Aneurysm Click Here
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)
This document is only a SHORT PREVIEW of the Medifocus Guidebook on Abdominal Aortic Aneurysm. It is intended primarily to give you a general overview of the format and structure of the Guidebook as well as select pages from each major Guidebook section listed in the Table of Contents.

To purchase the COMPLETE Medifocus Guidebook on Abdominal Aortic Aneurysm (144 pages; Updated June 20, 2017), please:

- Call us at:
  - 800-965-3002 (United States)
  - 301-649-9300 (Outside the United States)

- Order online through our website:
  - **Printed Version**
    - Mailed to you and bound for easy reading.
    - Includes free online access to the electronic guidebook for one full year.

  - **Electronic Version**
    - Adobe PDF document that can be viewed or printed on any computer
    - Online updates are included for one full year.
Disclaimer

*Medifocus.com, Inc.* serves only as a clearinghouse for medical health information and does not directly or indirectly practice medicine. Any information provided by *Medifocus.com, Inc.* is intended solely for educating our clients and should not be construed as medical advice or guidance, which should always be obtained from a licensed physician or other health-care professional. As such, the client assumes full responsibility for the appropriate use of the medical and health information contained in the Guidebook and agrees to hold *Medifocus.com, Inc.* and any of its third-party providers harmless from any and all claims or actions arising from the clients’ use or reliance on the information contained in this Guidebook. Although *Medifocus.com, Inc.* makes every reasonable attempt to conduct a thorough search of the published medical literature, the possibility always exists that some significant articles may be missed.

Copyright

© Copyright 2016, *Medifocus.com, Inc.* All rights reserved as to the selection, arrangement, formatting, and presentation of the information contained in this report, including our background and introductory information.