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The ankle-brachial index-a classification of the patient education websites

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Abstract

The authors present a classification of the most important types of online resources regarding the ankle-brachial index, for patients with peripheral arterial disease and other interested people (websites of national institutes, universities of medicine, regional hospitals, medical societies and associations etc).

Keywords: patient education, websites, peripheral arterial disease, ankle-brachial index

Rezumat

Autorii prezintă o clasificare a celor mai importante surse online de informare pentru pacienţii cu arteriopatie obliterantă periferică şi pentru alte persoane interesate, referitoare la indicele de presiune sistolică gleznă-braţ (situri ale unor instituţii nationale, universităţi de medicină, spitale regionale, societăţi şi asociaţii medicale etc).

Cuvinte cheie: educaţia pacientului, internet, arteriopatie obliterantă periferică, indice de presiune sistolică gleznă-braţ

Many websites provide easy-to-read information about the diagnostic and the management of peripheral arterial disease (PAD)-clinical features, diagnostic tests, medical treatment, catheter-based interventions, and reconstructive surgery.

One of the most important diagnostic parameters of PAD is the ankle-brachial index (ABI). It is the ratio between the systolic blood pressure at the ankle and the systolic blood pressure measured at the arm. The ABI of less than or equal to 0.9 is a marker of limb ischemia and a criterion of PAD diagnostic [1,2].

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The online patient education resources regarding ABI may be classified as follows:

- National Institutes and Organizations
- Scientific Societies and Professional Associations
- Universities of Medicine, University Medical Centers
- Regional Hospitals
- Other Healthcare providers (Heart & Vascular Institutes, Medical Associates)
- Support Groups, Associations and Coalitions
- Health foundations
- Companies providing preventive health screenings
- Medical supply companies
- Medical designers
- Pharmaceutical Industry
- Medical Journals with Patient Pages
- Patient portals initiated by Scientific Societies and Professional Associations
- Medical Information Websites Offering Evidence-based Approach
- General Websites offering medical information
- Free content encyclopedia Web-based projects

- Open Content Networks
- Websites financially supported from personal funds

National Institutes and Organizations:

- http://www.cdc.gov Centers for Disease Control and Prevention (CDC) > Search > Ankle Brachial Index > NHANES (National Health and Nutrition Examination Survey) 2003-2004 Examination Files > Lower Extremity Ankle Brachial Blood Pressure Index or http://www.cdc.gov/nchs/nhanes/nhanes2003-2004/exam03_04.htm (website accessed on May 29, 2010)
- http://nhlbi.nih.gov National Heart, Lung, and Blood Institute. National Institute of Health > Public > Health Information for the Public > Heart and Vascular Diseases > Peripheral Arterial Disease > Stay in Circulation. Facts About Peripheral Arterial Disease (P.A.D.) > Diagnostic Tests or http://www.nhlbi.nih.gov/health/public/heart/pad/docs/pad_extfctsht_general_508.pdf (website accessed on May 29, 2010)
- http://www.nlm.nih.gov/medlineplus National Library of Medicine (NLM) National Institute of Health (NIH) > Medical Encyclopedia > Browse by first letter of topic > P > Peripheral artery disease – legs > Exam and Tests http://www.nlm.nih.gov/medlineplus/ency/article/000170.htm (website accessed on May 29, 2010)

Scientific Societies and Professional Associations:

- http://www.aium.org American Institute of Ultrasound in Medicine > Patients > About Your Ultrasound Exam > Doppler > What is Doppler Ultrasound > Continuous Wave Doppler Ultrasound (website accessed on May 29, 2010)
- http://americanheart.org American Heart Association > Conditions > More > Peripheral Artery Disease > Symptoms and Diagnosis of PAD > Diagnosing PAD > Ankle – brachial index (ABI) http://www.heart.org/HEARTORG/Conditions/More/PeripheralArteryDisease/Symptoms-and-Diagnosis-of-PAD_UCM_301306_Article.jsp (website accessed on May 29, 2010)
- http://www.sirweb.org Society of Interventional Radiology > Patients > IR Treatments > Peripheral Arterial Disease > Risk for Heart Attack > The ABI (website accessed on May 30, 2010)
- http://www.svunet.org Society for Vascular Ultrasound > Bookstore > Patient Education Guides > Vascular Testing and You (website accessed on May 30, 2010)
- http://www.vascularweb.org Society for Vascular Surgery > Patients and Families > Vascular Conditions, Tests, and Treatments > Tests > Ankle-Brachial Index (website accessed on May 30, 2010)
- http://wocn.org Wound, Ostomy and Continence Nurses Society > Patients: Care & Information > Patient Care Publications > WOCN Society Patient Guides > Ankle Brachial Index: A Guide for Patients (website accessed on May 30, 2010)

Universities of Medicine, University Medical Centers:

- http://www.loyolamedicine.org Loyola University Health System, Maywood, IL > Health Guide > Health Encyclopedia > Diseases and Conditions > P > Peripheral Artery Disease – legs > Exams and Tests (website accessed on May 30, 2010)
- http://www.ohsu.edu Oregon Health & Science University > Healthcare > Health Health Information > Tests & Procedures > Vascular Studies (Tests & Procedures) > Doppler ultrasound (website accessed on May 30, 2010)
- http://www.stanfordhospital.com Stanford Hospital & Clinics. Stanford University Medical Center > Clinical Services > Medical Services > Vascular Laboratory (website accessed on June 2, 2010)
- http://www.stanfordhospital.com Stanford Hospital & Clinics. Stanford University Medical Center > Health Inforation > Stanford Health Library > Diagnosis > Medical Tests > Cardiovascular System Diagnostic Procedures > Vascular Diagnostics > Ankle Blood Pressure Measurement (ABI) (website accessed on June 2, 2010)
- http://ucsfhealth.org University of California San Francisco (UCSF) Medical Center > Health Library > Medical Tests > D > Doppler Ultrasound Exam of Arm or Leg (website accessed on June 2, 2010)
- http://www.umm.edu University of Mariland Medical Center > Health Library > Medical Reference > Audio/Video Library > Medical References > In-depth Patient Education Reports > Peripheral artery disease and intermittent claudication > Diagnosis > Ankle-Brachial Index (website accessed on June 2, 2010)

Regional Hospitals:

- http://healthlibrary.brighamandwomens.org Brigham and Women's Hospital (BWH), Boston, MA. A Teaching Affiliate of Harvard Medical School > Adult Health Library > Cardiovascular Diseases > Vascular Conditions and Diseases > Peripheral Vascular Diasease > Peripheral Artery Disease > How is peripheral artery disease diagnosed? > Ankle-brachial index (ABI) (website accessed on June 2, 2010)
- http://www.diabetes.usyd.edu.au Diabetes Ambu-

latory Care Centre, Royal Prince Alfred Hospital, Sydney, Australia > Diabetes Foot Disease > What is peripheral vascular disease? (website accessed on May 30, 2010)

- http://www.dmhcares.org Decatur Memorial Hospital, Decatur, IL > Services > Radiology > Diagnostic Radiology Screenings > Ankle-brachial index (ABI) screen (website accessed on May 30, 2010)
- http://www.mainlinehealth.org Main Line Health, PA Centers & Programs > Diseases & Conditions > Adult Health Library > Cardiovascular Diseases Claudication > How is claudication diagnosed? > Ankle-brachial index (ABI) (website accessed on June 2, 2010)
- http://www.nortonhealthcare.com Norton Healthcare, Louisville, KY > Health Library > In-Depth Reports – Top 100 Conditions > P > Peripheral artery disease and intermittent claudication > Ankle-Brachial Index (website accessed on May 30, 2010)
- http://www.riverfallsareahospital.com River Falls Area Hospital River Falls, WI > Search > Ankle-Brachial Index (articles) (website accessed on May 30, 2010)
- http://www.thecaregroup.com The Care Group, St. Vincent Heart Center of Indiana, Indianapolis, IN > Patients > The Vascular Institute > Peripheral Vascular Disease > Diagnostic Services > Ankle-Brachial Index (ABI) Test (website accessed on May 30, 2010)

Other Healthcare providers (Heart & Vascular Institutes, Medical Associates):

- http://www.allina.com Allina Hospitals & Clinics (Minnesota and western Wisconsin) > Search > Ankle-brachial index or http://www.allina.com/ahs/vascular.nsf/page/ABI (website accessed on May 30, 2010)
- http://www.californiaheartclinic.com California Heart & Vascular Clinic San Diego, CA > For Patients > Patient Education Library > Conditions > Peripheral Vascular Disease > Peripheral Arterial Disease > Diagnosis > Ankle/Brachial Index (website accessed on June 2, 2010)
- http://www.centennialheart.com Centennial Heart (Cardiovascular Consultants Specializing in Consultative, Diagnostic & Interventional Cardiology, Middle Tennessee and Southern Kentuky) > Screenings and Diagnostic Testing > Ankle-Brachial Index Test (ABI) (website accessed on May 30, 2010)
- http://www.centralsurgicalassociates.com Central Surgical Associates Jackson, MS > Patient Education Library > Foot & Ankle > Diabetic Foot > Diagnosis (website accessed on June 3, 2010)
- http://www.clevelandclinic.org The Cleveland Clinic, OH > Health Information > Diseases & Conditions > P > Peripheral Arterial Disease (PAD) Overview > How is PAD detected? (website accessed on June 3, 2010)
- http://www.gvg.org.uk Gloucestershire Vascular Group (Vascular Surgeons in the County of Gloucestershire, UK) > Patient Information Pages > Intermittent Claudication > What investigations will I need? (website accessed on May 30, 2010)
- http://www.heartlandcardio.com Heartland Cardiovascular Center, IL > Patient Education (Interactive Patient Education Library) > Peripheral Artery Disease- Poor Circulation > Diagnosis (website accessed on May 30, 2010)

Support Groups, Associations and Coalitions:

- http://www.amputee-coalition.org Amputee Coalition of America (ACA) > Site Search (Google Custom Search) > Ankle Brachial Index (Articles) (website accessed on May 30, 2010)
- http://www.padcoalition.org P.A.D. (Peripheral Arterial Disease) Coalition > Resources > P.A.D. Slide Library (Slides on Lower Extremity P.A.D.) > Section 2: Clinical Presentation > ABI (website accessed on May 30, 2010)

Health Foundations:

- http://www.cardiosmart.org Consumer Information Service of the American College of Cardiology Foundation > Learn About Heart Disease > Conditions > P > Peripheral Arterial Disease (PAD) > Diagnostic Tests and Procedures (website accessed on May 30, 2010)
- http://www.vdf.org Vascular Disease Foundation > Resources > Pamphlets > Focus on the ABI > What you need to know about the ankle-brachial index (ABI) test for peripheral arterial disease or PAD (website accessed on May 30, 2010)
- http://www.vdf.org Vascular Disease Foundation > Interactive Learning > Ask the Doctor > Archives > November 21. Dr. Kerry Stewart Answered your Questions about Exercise and PAD > Is the ABI the only test used to diagnose PAD or is there another way to know if I have it? (website accessed on May 30, 2010)
- http://www.vdf.org Vascular Disease Foundation > Resources > Newsletters > Keeping In Circulation. The Official Newsletter of the Vascular Disease Foundation: The Facts About PAD. What Is Peripheral Arterial Disease? (Fall 2000; Vol 1

No 1) > Vascular Terms that Start with the Letter "A" > ABI or Ankle-Brachial Index Measurement (website accessed on May 30, 2010)

Companies providing preventive health screenings

- http://www.healthscreenplus.com Health Screen Plus, MN > Investigations/Tests > Ultrasounds (website accessed on May 30, 2010)
- http://www.legsforlife.org/aboutlfl.shtml Legs For Life® National Screening for Vascular Disease (a program developed by the Society of Interventional Radiology SIR) > What Happens During a Legs For Life Screening? (website accessed on June 3, 2010)
- http://www.lifelinescreening.com Life Line Screening > Screening Services > Peripheral arterial disease > Watch our video: Peripheral Arterial Disease/ABI Screening (website accessed on May 30, 2010)
- Medical supply companies:
- http://www.cascadedopplers.com Cascade Healthcare Products, Portland, OR > Nicolet Dopplers > Dopplers with ABI Kits (website accessed on May 30, 2010)
- http://www.clinicalhealthsolutions.com Clinical Solutions, Inc. > Diagnostic Medical Equipment > Ankle-Brachial Index Testing (website accessed on May 30, 2010)
- http://www.physiciansofficeresource.com Physicians Office Resource.com > Diagnostics > Diagnostic Product Directory > Cardiovascular Diagnostic Devices > Ankle Brachial Index (ABI) Equipment or http://www.physiciansofficeresource.com/diagnostic-products/cardiovascular-diagnostic-devices/ankle-brachial-index-abi-equipment/index.asp (website accessed on May 30, 2010)
- http://www.wilburnmedical.com Wilburn Medical Co, USA > Diagnostic Products > Dopplers (website accessed on May 30, 2010)

Medical designers:

- http://www.clark-illustration.com Biocommunication Solutions > online portfolio > Peripheral Artery Disease – ABI (Image 25 of 35) (website accessed on May 30, 2010)

Pharmaceutical Industry:

- http://www.healthandage.com Health and Age, sponsored by Boomerang Pharmaceutical Communications > Encyclopedia > Disease > Peripheral Arterial Disease > Signs and tests (website accessed on June 3, 2010)
- http://www.padfacts.org P.A.D. Facts (Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership) > Getting Diagnosed > Testing for P.A.D.or http://www.padfacts.com/pad-test.aspx (website accessed on May 30, 2010)
- http://www.plavix.com Plavix (Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership) > Peripheral Artery Disease (P.A.D.) > Am I at Risk for P.A.D.? > Getting Tested > The A.B.I. test – fast, easy, and reliable (website accessed on May 30, 2010)

Medical Journals with Patient Pages:

- http://circ.ahajournals.org Circulation > Search > Patient Page > Cardiology Patient Pages: Peripheral Arterial Disease, Circulation 2005; 111: e169 – e172 > How PAD is diagnosed?; Testing in the Noninvasive Vascular Laboratory, Circulation 2007; 115: e624–e626 (website accessed on June 3, 2010)
- http://jama.ama-assn.org/cgi/reprint/295/5/584.pdf JAMA Patient Page (The Journal of the American Medical Association) – JAMA 2006; 295(5): 584 Peripheral Arterial Disease (website accessed on May 30, 2010)

Patient portals initiated by Scientific Societies and Professional Associations:

- http://www.familydoctor.org Health Information from the American Academy of Family Physicians > Conditions A-Z > P > Peripheral Arterial Disease and Claudication > How can my doctor be sure I have PAD or claudication? (website accessed on June 5, 2010)
- http://www.hearthub.org HeartHub for Patients. American Heart Asociation's patient portal > Health Centers > Peripheral Artery Disease (PAD) > Video Library > Ankle-Brachial Index Exam Video (website accessed on May 30, 2010)
- http://www.patienteducationcenter.org Pri-Med Patient Education Center (created by Harvard Medical School) > Search > Ankle-brachial Index > Who needs it?; What's the procedure?: What it shows (website accessed on May 30, 2010)
- http://www.seconds-count.org The Society for Cardiovascular Angiography and Interventions > Tests & Diagnostics > Ankle-Brachial Index (ABI) (website accessed on June 5, 2010)

Medical Information Websites Offering Evidence-based Approach:

- http://www.emedicinehealth.com (website operated by WebMD) > Search > ankle brachial index > Articles > Segmental arterial Doppler pressures (Source: MedicineNet) (website accessed on June 5, 2010)
- http://www.healthboards.com Health Message

Boards > Search Boards > Ankle Brachial Index > ABI results (Board: Heart Disorders) (website accessed on May 30, 2010)
- http://www.healthcentral.com HealthCentral Network > Search > Ankle Brachial Index (website accessed on June 5, 2010)
- http://www.healthline.com Healthline (Health Search Engine and Free Medical Information) > Search > Ankle Brachial Index > Results from the Web (article) (website accessed on June 5, 2010)
- http://www.medicalnewstoday.com Medical News Today: Health News. > Search > Ankle Brachial Index (website accessed on June 5, 2010)
- http://www.patient.co.uk Patient UK > Information for patients > Information Leaflets > Condition Leaflets > Heart/Blood Vessels > Peripheral Arterial Disease in Legs > How is peripheral arterial disease diagnosed? (website accessed on June 5, 2010)
- http://www.uptodate.com UpToDate Patient Information > For Patients > Search > Heart Disease > Claudication > Patient information: Claudication (peripheral arterial disease > Claudication Diagnosis > Ankle-arm index (website accessed on June 5, 2010)
- http://www.webmd.com/heart-disease/ankle-brachial-index-test WebMD. Heart Disease Health Center. Ankle-brachial index test (website accessed on May 29, 2010)
- http://www.yourtotalhealth.ivillage.com A Service of NBC and iVillage > Conditions A-Z > P > Peripheral Arterial Disease of the Legs > How is PAD diagnosed? (website accessed on June 5, 2010)

General Websites offering medical information:
- http://www.about.com The New York Times Company > Browse Our Channels > Health > Search > Ankle Brachial Index or http://sportsmedicine.about.com/od/glossary/g/ABI_def.htm (website accessed on May 30, 2010)
- http://health.yahoo.net > Health Search > Ankle Brachial Index (website accessed on June 5, 2010)

Free content encyclopedia Web-based projects:
- http://en.wikipedia.org/wiki/Ankle_brachial_pressure_index Wikipedia, The Free Encyclopedia (website accessed on May 30, 2010)

Open Content Networks:
- http://www.associatedcontent.com Associated Content (AC-an Open Content Network) > Search > Ankle Brachial Index (website accessed on June 5, 2010)

Websites financially supported from personal funds:
- http://www.vascular.co.nz Damien Mosquera Ltd >General vascular disease > Assessment of vascular disease > Hand held Doppler

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