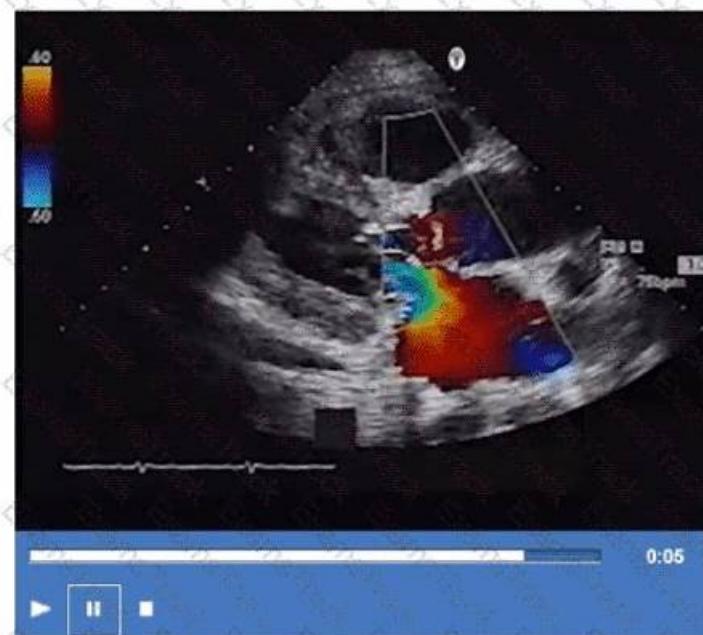


# AE-Adult-Echocardiography試験の準備方法 | 一番優秀なAE-Adult-Echocardiography勉強時間試験 | 完璧なAE Adult Echocardiography Examination関連試験



我々It-Passportsはお客様の立場でお客様に最高のサービスを提供します。全日でのオンライン係員、ARDMSのAE-Adult-Echocardiography試験資料のデモ、豊富なバーション、ARDMSのAE-Adult-Echocardiography試験資料を購入した後の無料更新、試験に失敗した後の全額の返金…これら全部は我々It-Passportsが信頼される理由です。あなたは我々のソフトを通してARDMSのAE-Adult-Echocardiography試験に順調に合格したら、私たちの共同の努力を覚えられると希望します。

## ARDMS AE-Adult-Echocardiography 認定試験の出題範囲:

トピック	出題範囲
トピック 1	<ul style="list-style-type: none"><li>• Anatomy and Physiology: This section of the exam measures skills of adult echocardiography technicians and covers knowledge and abilities related to normal cardiac anatomy and physiology. It includes assessing great vessels like the aorta and pulmonary arteries, recognizing anatomic variants of the heart, and evaluating cardiac chambers, pericardium, valve structures, and vessels of arterial and venous return. Candidates must document normal systolic and diastolic function, normal valve function and measurements, the phases of the cardiac cycle, normal Doppler changes with respiration, and appearance of arterial and venous waveforms. This also involves assessing the normal hemodynamic response to stress testing and maneuvers such as Valsalva, respiratory, handgrip, and postural changes.</li></ul>
トピック 2	<ul style="list-style-type: none"><li>• Clinical Care and Safety: This section of the exam measures skills of adult echocardiography technicians in applying clinical care principles and safety protocols. It includes evaluating patient history and external data, preparing patients including fasting state and intravenous line management, proper patient positioning, EKG lead placement, blood pressure measurement, and ergonomic techniques. Candidates are expected to identify critical echocardiographic findings, know contraindications for procedures, and be able to respond and manage medical emergencies that may arise during echocardiographic exams.</li></ul>

トピック 3	<ul style="list-style-type: none"> <li>Instrumentation, Optimization, and Contrast: This section of the exam measures skills of adult echocardiography technicians related to use and optimization of ultrasound instrumentation and the application of contrast agents. Candidates should recognize imaging artifacts, utilize non-imaging transducers, and adjust ultrasound console settings for optimal imaging and Doppler recordings. Knowledge of harmonic imaging, principles of contrast agents, and the safe and effective use of saline and echo-enhancing contrast agents is essential. Candidates must also be able to optimize images when using contrast agents to ensure diagnostic quality.</li> </ul>
トピック 4	<ul style="list-style-type: none"> <li>Pathology: This section of the exam measures skills of adult echocardiography technicians and focuses on identifying and evaluating abnormal physiology and perfusion and postoperative conditions. It includes assessment of ventricular aneurysms, aortic and valve abnormalities, arrhythmias, cardiac masses, diastolic dysfunction, endocarditis, ischemic diseases, cardiomyopathies, congenital anomalies, and postoperative valve repair or replacement and intracardiac devices. Candidates must demonstrate ability to recognize abnormal Doppler signals, EKG changes, wall motion abnormalities, and a wide range of cardiac pathologies including pulmonary hypertension and septal defects.</li> </ul>
トピック 5	<ul style="list-style-type: none"> <li>Measurement Techniques, Maneuvers, and Sonographic Views: This section of the exam measures skills of adult echocardiography technicians in performing accurate cardiac measurements, conducting provocative maneuvers, and obtaining optimized sonographic imaging views. It involves applying 2D, 3D, M-mode, and Doppler techniques to measure heart valves, chambers, and vessels, including the aortic valve, mitral valve, left and right ventricles, atria, pulmonary artery, and shunt ratios. Candidates must instruct patients in maneuvers such as Valsalva, cough, sniff, and squat. They should also be proficient in acquiring standard echocardiographic views including apical, parasternal, subcostal, and suprasternal notch views.</li> </ul>

#### >> AE-Adult-Echocardiography勉強時間 <<

### ARDMS AE-Adult-Echocardiography関連試験 & AE-Adult-Echocardiography PDF

このインターネット時代において、社会の発展とともに、コストがより低くて内容が完全な情報が不可欠です。弊社のAE-Adult-Echocardiography問題集は他のサイトに比べて、試験の範囲をカバーすることはより広くて、合理的な価格があります。しかしも、品質はもっと高くて一度AE-Adult-Echocardiography試験に合格したい客様に対して、我が社のAE-Adult-Echocardiographyはあなたの最高選択かつ成功のショートカットであると思われます。

### ARDMS AE Adult Echocardiography Examination 認定 AE-Adult-Echocardiography 試験問題 (Q36-Q41):

#### 質問 # 36

Which acute disease state is indicated with McConnell's sign?

- A. Myocardial infarction
- B. Aortic dissection
- C. Libman-Sacks endocarditis
- D. Pulmonary embolism

正解: D

解説:

McConnell's sign is an echocardiographic finding characterized by regional right ventricular (RV) dysfunction with akinesia of the mid-free wall but preserved contractility of the apex. This pattern is highly specific for acute pulmonary embolism (PE).

In acute PE, sudden obstruction of the pulmonary artery leads to acute right ventricular pressure overload, causing regional wall motion abnormalities. The sparing of the apex differentiates it from other causes of RV dysfunction such as myocardial infarction. This sign is considered a useful bedside clue in the echocardiographic diagnosis of PE, especially when combined with clinical findings and Doppler evidence of elevated pulmonary pressures.

The sign is described in the "Textbook of Clinical Echocardiography, 6e", Chapter on Acute Right Heart Dysfunction, with reference to McConnell's original description and its clinical significance in acute pulmonary embolism diagnosis#20:340-345Textbook of

質問 #37

What is the route of ventricular depolarization?

- A. Right bundle to left bundle branch
- B. **Bundle of His to Purkinje fibers**
- C. Bundle of His to atrioventricular node
- D. Sinoatrial to atrioventricular nodes

正解: **B**

解説:

Ventricular depolarization begins with the electrical impulse traveling from the atrioventricular (AV) node to the Bundle of His, which then bifurcates into the right and left bundle branches. From the bundle branches, the impulse travels to the Purkinje fibers, which rapidly distribute the impulse to ventricular myocardium causing ventricular contraction.

Option A is incorrect because the impulse does not travel from the right to the left bundle branch; they run parallel. Option B describes atrial conduction. Option C is incorrect because the AV node precedes the Bundle of His, not the reverse.

This conduction pathway is detailed in the "Textbook of Clinical Echocardiography, 6e", Chapter on Cardiac Electrophysiology#20:40-45Textbook of Clinical Echocardiography#.

質問 #38

Which of the following are key features of an unrepairsed tetralogy of Fallot?

- A. Inlet ventricular septal defect, common atrioventricular valve, atrioventricular valve regurgitation, and primum atrial septal defect
- B. Supravalvular mitral valvular ring, subaortic membrane, bicuspid aortic valve, and aortic coarctation
- C. Displaced tricuspid valve, atrialization of the right ventricle, severe tricuspid regurgitation, and a secundum atrial septal defect
- D. **Outlet ventricular septal defect, overriding aorta, right ventricular outflow tract obstruction, and right ventricular hypertrophy**

正解: **D**

解説:

Comprehensive and Detailed Explanation From Exact Extract:

Tetralogy of Fallot (TOF) is a congenital heart defect characterized by four key anatomical abnormalities: an outlet (malalignment) ventricular septal defect (VSD), an overriding aorta that receives blood from both ventricles, right ventricular outflow tract (RVOT) obstruction (commonly infundibular stenosis), and resultant right ventricular hypertrophy. These defects cause cyanosis due to right-to-left shunting and impaired pulmonary blood flow.

Option A describes Ebstein anomaly, characterized by a displaced tricuspid valve and atrialization of the right ventricle.

Option B describes features more consistent with Shone complex or other left heart obstructive lesions.

Option C describes atrioventricular septal defect (AVSD), seen in conditions like Down syndrome.

In unrepairsed TOF, echocardiography demonstrates the large malalignment VSD, overriding aorta, RVOT obstruction, and hypertrophied right ventricle. These are classic textbook findings described in adult and pediatric echocardiography literature, including "Textbook of Clinical Echocardiography" (Chapter on Congenital Heart Disease) and ASE guidelines#16:Textbook of Clinical Echocardiography, 6ep.560-565#

#12:ASE Adult Congenital Guidelinesp.400-410#.

質問 #39

A patient presents with tender, red lesions on their fingers and toes (Osier nodes). Which finding is most likely?

- A. **Infective endocarditis**
- B. Carcinoid heart disease
- C. Papillary fibroelastoma
- D. Laml excrescences

正解: **A**

#### 解説:

Osler nodes are tender, erythematous nodules typically located on the fingers and toes, and are a classic sign of infective endocarditis (IE). They represent immune complex deposition and microemboli causing localized vasculitis.

Carcinoid heart disease presents with right-sided valve fibrosis and not with Osler nodes. Lambl excrescences are small filiform valvular strands without clinical manifestations such as Osler nodes. Papillary fibroelastomas are benign cardiac tumors that may cause emboli but not immune-mediated skin lesions.

This classic clinical sign and its echocardiographic correlation in IE are discussed in the "Textbook of Clinical Echocardiography, 6e", Chapter on Infective Endocarditis#20:400-405Textbook of Clinical Echocardiography#.

#### 質問 # 40

What is the normal dP/dt value of left ventricular systolic function?

- A. Less than 400 mmHg/s
- B. **Greater than 1200 mmHg/s**
- C. 800-1199 mmHg/s
- D. 400-799 mmHg/s

正解: **B**

#### 解説:

Comprehensive and Detailed Explanation From Exact Extract:

The left ventricular dP/dt is a measure of the rate of rise in left ventricular pressure during isovolumic contraction, which reflects systolic function. It is derived from Doppler echocardiography by measuring the time interval between mitral regurgitant jet velocities of 1 m/s and 3 m/s. Using the simplified Bernoulli equation, the pressure gradient at each velocity is calculated, and the rate of pressure rise (dP/dt) is calculated by dividing the pressure difference by the time interval between these velocities.

A normal left ventricular dP/dt is generally considered to be greater than 1200 mmHg/s. Values lower than this indicate impaired systolic function, as the ventricle is slower to generate pressure during contraction.

For example, a measured time interval of 36 milliseconds (0.036 seconds) between the MR velocities of 1 and 3 m/s corresponds to a dP/dt of approximately 889 mmHg/s, which is mildly reduced, indicating some systolic dysfunction.

The exact extract from the "Textbook of Clinical Echocardiography, 6e" states that normal dP/dt values are typically above 1000 mmHg/s, with >1200 mmHg/s considered a robust indicator of normal systolic function.

This measure is useful but requires a measurable mitral regurgitation jet and consistent alignment of the ultrasound beam. Variability in measurement can occur based on technical factors, but the dP/dt remains a useful parameter to quantify systolic function noninvasively.

#### 質問 # 41

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**AE-Adult-Echocardiography関連試験:** <https://www.it-passports.com/AE-Adult-Echocardiography.html>

- AE-Adult-Echocardiography参考資料  AE-Adult-Echocardiography模擬練習  AE-Adult-Echocardiography試験勉強書  URL ⇒ [www.mogixam.com](http://www.mogixam.com) をコピーして開き、 AE-Adult-Echocardiography  を検索して無料でダウンロードしてくださいAE-Adult-Echocardiography受験対策書
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